FINDING HOME: CREATING A VIDEO GAME SOUNDTRACK

Samantha Chase

FINDING HOME: CREATING A VIDEO GAME SOUNDTRACK

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In Partial Fulfillment of the Requirements for Honors in the Degree of

BACHELOR OF MUSIC IN MUSIC EDUCATION

SCHWOB SCHOOL OF MUSIC

COLLEGE OF THE ARTS

By

Samantha Chase

2016

Dr. James Ogburn, Chair

Susan Tomkiewicz

Dr. Susan Tomkiewicz, Member

Dr. Matthew McCabe, Member

12/8/2016

Date

Cindy Ticknor

Dr. Cindy Ticknor, Department Chair

COLUMBUS STATE UNIVERSITY

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BY SAMANTHA CHASE

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Committee Chair:

Dr. James Ogburn

Committee Members:

Dr. Susan Tomkiewicz
Dr. Matthew McCabe

Signature Page Approved:

Committee Chair
Columbus State University
May 2017

Abstract

The purpose of this lecture recital was to reflect on the characteristics of video game music, how those characteristics were shaped through technological advancements in the industry, and how to apply them to composition. Due to the limitations of early video game technology and memory space, video game composers were extremely limited. Composers worked through these limitations by composing with limited range and timbres, looping, and extensive use of ostinato. Even though modern day composers are not faced with this challenge, many still rely heavily on these techniques as they have become iconic of video game music. Video game composers are further limited by having to match their music to someone else's story and ideas. For this project, I simulated the experience of creating a soundtrack for a video game by collaborating with Noelani Wood, a local artist, and consulting with Dr. Ogburn, the composition professor at Columbus State University.

INDEX WORDS: composition, soundtrack, video game, video game music

TO ZACK

Without whom none of this would have been possible
For all your love and support

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Table of Contents

Acknowledgements....................v

List of Figures....................vii

1. Introduction....................1

  1.1 Concept Development....................2

  1.2 “Game” Concept....................3

  1.3 Video Game Music Characteristics....................3

2. Composing the Piece....................10

  2.1 Opening Theme....................11

  2.2 Flashback Theme....................12

  2.3 Flight Theme....................15

  2.4 Patria Theme....................18

  2.5 Cavern Theme....................19

  2.6 Orias Theme....................21

  2.7 Yivenawae Theme....................23

  2.8 Reunion Theme....................25

3. Working with Live Musicians....................26

  3.1 Selecting Performers and Organizing Rehearsals....................26

  3.2 Paying Performers: SRACE Grant....................27

4. Conclusion....................28

Bibliography....................29

  Works Cited....................29

  Works Referenced....................30

Appendix: Scores....................32

List of Figures

Figure 1. Mt. Moon Theme Beginning 9

Figure 2. Mt. Moon Theme Ostinato 9

Figure 3. Opening Screen 11

Figure 4. Sonya Manuzzi 13

Figure 5. Taurian “Buddy” Valkalis 13

Figure 6. First Meeting 14

Figure 7. Sonya’s Ship 16

Figure 8. Hub Ship 16

Figure 9. Patria 18

Figure 10. Cave Glowfish 20

Figure 11. Orias 22

Figure 12. Yivenawae 24

Figure 13. Under the Canopy 24

1. Introduction

In the early years of the video game industry, the music or sounds that could be included in a video game were extremely limited because of the available technology. As a result, certain patterns and trends emerged that have become iconic of "video game music" such as limited range, looping, and extensive use of ostinati. Due to the advances in technology, video game composers today have endless resources and tools and the possibilities for musical content are unlimited. However, because of the trends that emerged early in video game history, much of video game music today still uses those elements even though modern composers do not face the limitations of their predecessors.

Another challenge in writing video game music that is still facing composers today is that, excluding games where the story revolves around pre-existing music (like *Guitar Hero* or other music rhythm games), the music has to fit the image of the final product that the game creator or director has envisioned. This means that another person has a large amount of control over the result.

For this project, I simulated the experience of creating a soundtrack for a video game by collaborating with a local artist who primarily draws animated characters. I also mimicked the review process by using the material from my thesis during my composition lessons.

1.1 Concept Development

When commissioned to create the soundtrack for a game, the composer receives information about the game such as character descriptions, concept art, and any other relevant information that would be needed for each track. Since the initial idea for the "game" I would be composing for did not actually exist, I had to create that content.

In order to do that, I collaborated with an artist named Noelani Wood to make concept art for the game and used this as the basis for my composition. I told Noelani that the game would be set in space and gave her the bare-bones concept of the "game". I told her that she was free to decide all details after that point. Noelani then sent me sketches, character information, and finished images for each part of the soundtrack.

After a composer has submitted a piece for a video game soundtrack, either the game designer, director, or creative team would give feedback on the piece and suggest edits if necessary. I have simulated that experience by taking each of the pieces I used in my thesis to Dr. Ogburn, the composition professor at Columbus State University, during my composition lessons. In each lesson, Dr. Ogburn gave me feedback on my music and suggested edits. I made those edits and brought the revisions to my next lesson. I repeated this cycle until Dr. Ogburn was satisfied with the piece, accurately simulating the exchange between creative director and composer in a real-world situation.

1.2 “Game” Concept

The story of the game centers on Sonya Manuzzi, a scientist, and her search for her friend Taurian “Buddy” Valkalis, an explorer, who is currently lost in space. Taurian sends a garbled and unintelligible message to Sonya, giving only a vague clue as to his whereabouts, shortly before missing his scheduled check-in with the Space Exploration Union (SEU). While the SEU will not rule someone as officially missing until one week beyond the date of their scheduled check-in, Sonya is almost certain something is wrong. Despite her usually cautious, cold, and unemotional nature, she sets off almost immediately to search for her friend in the vast expanse of space.

The majority of the narrative reveals itself through flashbacks or internal monologues from Sonya. Gameplay focuses on the exploration of different varied planets and searching for clues relating to Taurian’s location or status.[1]

1.3 Video Game Music Characteristics

The term video game refers to “any game consumed on video screens, whether these are computer monitors, mobile phones, handheld devices, televisions, or coin-operated arcade consoles.”[2] Video games are a genre that combines literary, dramatic, visual, and musical art forms into one interactive product. The interactivity of video games is what distinguishes it from a more passively enjoyed art form, such as films or movies. Interactive does not connote interpretation, since that would make all art technically interactive, but instead being able physically to act with that media[3]

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[1] Noelani Wood, *Finding Home Story*, 2016.

[2] Karen Collins, *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design* (Cambridge, MA: MIT Press, 2008), 3.

A video game soundtrack is very different from a movie soundtrack because the music has to be interactive, just like the other components of the game. In his interview with Matt Peckham, video game composer P.J. Tracy highlights this by saying "The way in which the music *reacts* to the gameplay has to feel intentional and not pull the player out of the gaming experience."[4] An individual watching the film and an individual listening to the soundtrack on CD will listen to a movie soundtrack in a similar way. Even if the experience itself differs, the music does not change. However, an individual listening to the soundtrack on CD (a fixed product that is not interactive) and an individual playing the game, taking longer in some areas than others, and creating different sound effects at different times, will experience the soundtrack of a video game vastly different.

Just as the graphic capabilities of video games have evolved (compare the visual effect of *Snake* to *Mario Tennis*), so has the audio capabilities (think *Pac man* vs. *Halo*). With the evolution of video game technology, there has also been the evolution of video game music itself.[5] Just as modern animals are traceable to their ancestral relatives through shared characteristics, you can do the same with modern video game music to its beginnings. Limited sound palette and number of voices, use of ostinati, and looping are all characteristics that have become associated with video game music due to their presence in early video game music, courtesy of the limitations of storage space and programming technology.

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[3] Karen Collins, *Game Sound,* 3.

[4] Matt Peckham, "Video Game Music: 2014 GANG Apprentice Award Winner Explains How He Did It," Time, March 27, 2014, accessed April 27, 2015, http://time.com/38723/video-game-music/.

[5] Sean M. Zehnder and Scott D. Lipscomb, "The Role of Music in Video Games," in *Playing Video Games: Motives, Responses, and Consequences*, by Peter Vorderer and Jennings Bryant (Mahwah, NJ: Lawrence Erlbaum Associates, 2006).

Having a narrow range and limited timbres is not necessarily a popular characteristic anymore, but it played a vital part in early video game music. Atari's arcade game *Pong,* for example, is an extremely simple computerized representation of tennis, where two players protect the goal on their side of the screen from a ball with a vertically moving bar. The only sounds the game has is a simple beep on a consistent pitch whenever the ball connects with something.

Atari's founder Nolan Bushnell wanted there to be sounds that mimicked a crowd's reaction to a tennis match included in the game. However, the game designer Allan Alcorn was incapable of the task, meaning "… the sounds were not an aesthetic decision, but were a direct result of the limited capabilities of the technology of the time."[6]

As arcade games developed, the possibilities for sounds increased with the use of additional sounds chips. However, "… additional sound chips were typically used for more advanced sound effects, rather than increased polyphony for music. The likely reason for this was a combination of the arcade's atmosphere and the difficulty in programming music…"[7] As a result, there were usually very few independent moving lines in arcade music.

---

[6] Karen Collins, *Game Sound*, 9.

[7] Ibid., 15.

Graduating from the arcade to the home, the Commodore 64 Computer (released in 1982) had a Sound Interface Device (SID) was capable of producing three independent lines at one time with many different filters, making it the most sophisticated electronic sound production system at the time.[8] The Nintendo Entertainment System (or NES) video game console (released in 1985) was able to produce up to five channels.[9] Not only that, but since the chaotic noise of the arcade was replaced by the quiet and calm of home, players could actually hear the different lines. Composers and programmers started using three moving voices in a general pattern "with one channel for lead, one for accompaniment, and one for bass."[10]

Programmers developing for home consoles would also sometimes use pre-existing music in video games, rather than create new musical content.[11] In his article "Bleep, Bloop, Bach? Some Uses of Classical Music on the Nintendo Entertainment System," William Gibbons says that "game programmers were also the composers… For programmers unwilling or unable to undertake such a task, using preexisting classical music provided a reasonable alternative".[12] This trend was assisted, rather than hindered, by the three voice limitations of the NES because “a fair amount of classical music… could be more or less faithfully reproduced using this texture.”[13]

---

[8] Mark J. P. Wolf, "Part V A Closer Look at Video Games," in The Video Game Explosion: A History from PONG to Playstation and Beyond (Westport, CT: Greenwood Press, 2008).

[9] Ibid.

[10] Karen Collins, *Game Sound*, 25.

[11] Karen Collins, "An Introduction to Procedural Music in Video Games," *Contemporary Music Review* 28, no. 1 (2009): accessed April 27, 2015, doi:10.1080/07494460802663983, 23.

[12] William Gibbons, "Blip, Bloop, Bach? Some Uses of Classical Music on the Nintendo Entertainment System.," *Music and the Moving Image* 2, no. 1 (2009): accessed April 27, 2015, http://www.jstor.org/stable/10.5406/musimoviimag.2.1.0040.

Another very common video game compositional technique is the prominent use of ostinati. Having a recurring bassline allows the composer or programmer to make multiple variations in the upper voices, therefore maximizing the amount of variety that could be achieved with a limited amount of memory and sounds.[14] Ostinati can also be easily used as transitions for track looping. If the upper voices fade out, the ostinato can be continued for a few bars and then loop back to the beginning of the track without any interruption.

Looping in this context is defined by a track starting over immediately once it ends with no break, so that the piece does not have a true ending and transitions seamlessly from end to beginning. Composers use final cadences and pauses rarely at the end of video game tracks because it creates an unnatural transition from the end of the piece back to the beginning. In early video game music, each bar or section would loop before continuing to the next bar or motive and material was not re-used until the entire track played its course and looped back to the beginning.[15] As the game industry developed and evolved and games became more complex, “the length of a looped segment varied by genre with “the genres that had the longest gameplay… having the longest loops.”[16] The trend of looping connects to the use of pre-composed music in home consoles since "… much classical music was easily made into musical loops, which were a necessity for providing music with a minimum use of memory."[17]

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[13] William Gibbons, *Classical Music.*

[14] Karen Collins, *Game Sound*, 44.

[15] Karen Collins, *Game Sound*, 27.

[16] Ibid.

However, "Although it was to some extent a response to the technological constraints of the time, looping was an aesthetic that developed in the early years of game music,"[18] meaning that looping was not just a response to unsophisticated technology or limited memory. Looping was also an aesthetic choice, particularly with looping small, unreturning motives that arose in order to "… avoid anything too "catchy" that might become annoying after many repetitions, in favor of various smaller melodic riffs…"[19] In fact, it was not until 1984 that looping became a staple in video game music.[20]

Since video games are interactive, video game music must always be flexible to transition to something new because, depending on the constraints of the game, the player may decide to do something that would cause a change in music at any time. Transitions exist within loops (from the end to the beginning) and between tracks. There are three types of transitions used in video game music: hard cuts, brief interludes, and elisions (where the end of one section runs into the beginning of the next).[21] An example of a transition within a loop would be the aforementioned use of ostinato, which could either be considered an interlude (since it lies in between melodic lines) or an elision (since the ostinato runs into itself), depending on how it is used. For example, in the Mt. Moon Theme from *Pokémon Red/Blue/Yellow,* the piece begins with an ostinato in the bottom voice, as shown in Figure 1.[22]

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[17] William Gibbons, *Classical Music.*

[18] Karen Collins, *Game Sound*, 19.

[19] Karen Collins, *Game Sound*, 44.

[20] Ibid., 19.

[21] Ibid., 28.

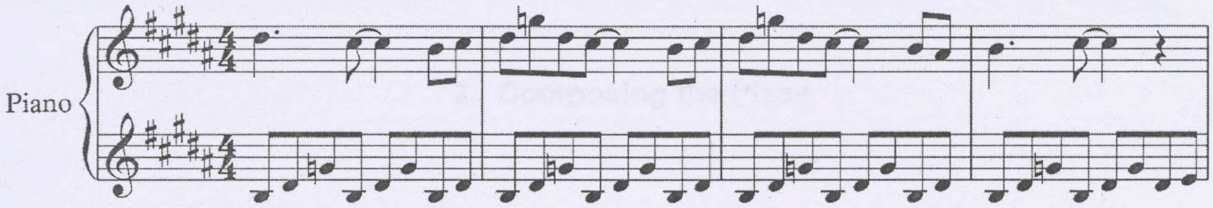

Figure 1. Mt. Moon Theme Beginning[23]

Then, after disappearing at the end of the piece, the ostinato returns to allow the piece to loop back to the beginning, as shown in Figure 2.

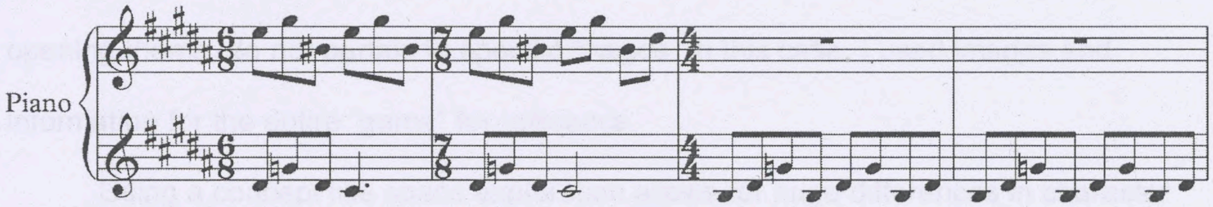

Figure 2. Mt. Moon Theme Ostinato[24]

In "The Role of Music in Video Games," the authors say:

> "Twenty years ago, composer of music for games were limited to simple beeps or synthesized sound, 8-bit central processing units (at best!), and minimal storage space. Today composers for video games often use state-of-the-art tools and instruments to extremely high quality soundtracks, rivaling the production quality and musical sources typical of cinema."[25]

Video game music and video games as a whole have made huge advances in scope and quality. The use of looping, ostinati, restricted sound palette, and limited number of moving voices, characteristics that started as a result of technological limitations, have become a part of what makes video game music its own style category. Composers still use these techniques in video game music today.

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[22] Junichi Masuda, composer, *Pokémon Red/Blue/Yellow: Mt. Moon Theme*, Game Freak, 1996.

[23] Ibid.

[24] Ibid.

[25] Zehnder and Lipscomb, *Role of Music*, 245.

2. Composing the Piece

I collaborated with Noelani Wood to determine the number of tracks the soundtrack would need and what characters, locations, and events would need their own track. After that, Noelani created concept art and fleshed out story and character ideas, then delivered that to me as a basis for my compositions. Some pieces, like the opening theme, do not pertain to specific images. In this case, I used images and information for the entire “game” for reference.

Using a concept like space exploration allows for huge differences in character and mood between different parts of the game. This gives the creative team (and composer) more freedom, but also gives the extra challenge of making extremely different pieces sound as if they are part of a single work. Because of this, I decided to limit the instrumentation of the entire project to percussion ensemble. This helped give the soundtrack a sense of cohesiveness across tracks representing wildly different worlds and concepts.

2.1 Opening Theme

Concept: This track plays while the player is viewing the opening title screen before the game has begun. This track has to be representative of the game as a whole, rather than a specific location or character.

Concept Art:

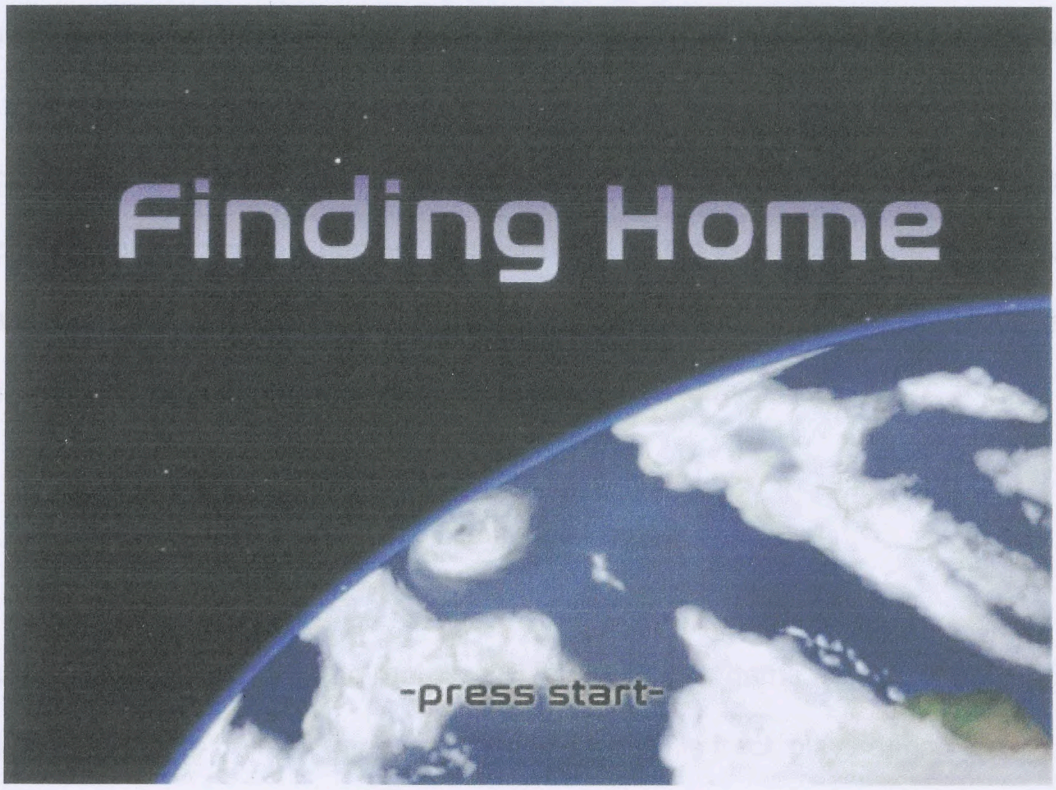

Figure 3. Opening Screen[26]

Instrumentation: Glockenspiel, two vibraphones, marimba, chimes, and wind chimes

Composition Process: The underlying ostinato of this piece builds upon a broken quintal chord. Quintal and quartal harmony create a very open feeling and the dissonance of the seconds is lost when the chord is broken. It also sounds somewhat otherworldly since western music generally uses tertian harmony rather than quintal.

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[26] Noelani Wood, 2016, *Finding Home Concept Art*.

The combination of these factors makes it work great for the overview of a game involving space exploration, especially since the opening title screen has a very open view of space itself. I took inspiration for this track from the “Planet Select” and “File Select” themes from *Super Mario Galaxy,* where the composer Koji Kondo uses a similar concept.

Review Comments: After consulting with Dr. Ogburn, I decided to change the opening piano to eight notes. This makes it easier for performers to read. This may not be an issue in a real world situation depending on whether or not the game intends to use live musicians to record or not, but for the purpose of this thesis it is important since the music will be performed in a concert setting. I also added to the glockenspiel part to indicate where the performer should let it ring and removed the decrescendos under this notes, since letting the note ring naturally achieves the same effect.

2.2 Flashback Theme

Concept: Since there will be no real-time dialogue in this “game”, a significant portion of the story is meant to be experienced via flashbacks. This track plays during the flashback segments.

Concept Art:

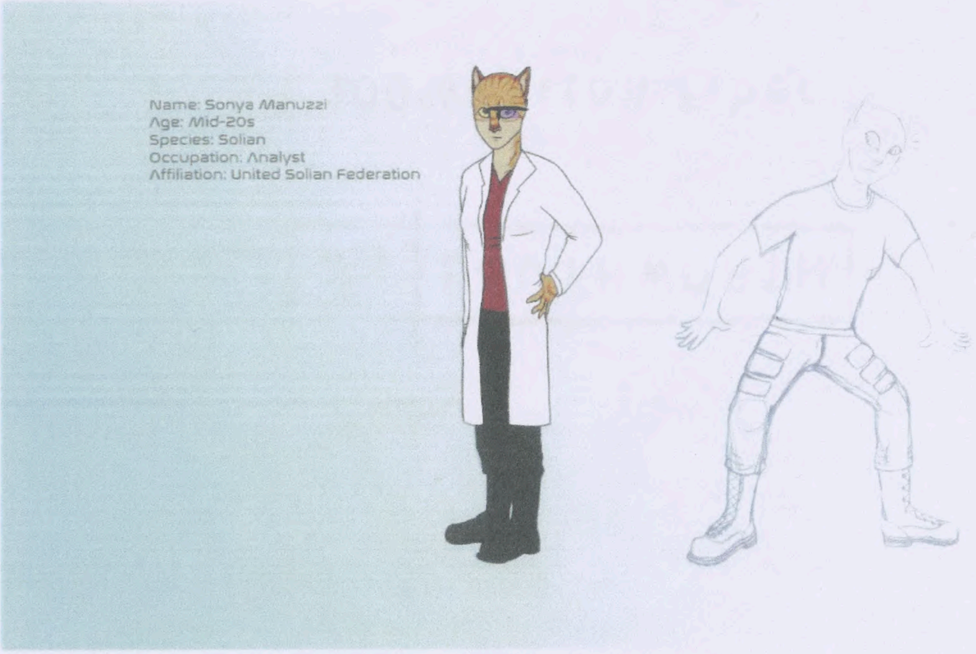
Name: Sonya Manuzzi
Age: Mid-20s
Species: Solian
Occupation: Analyst
Affiliation: United Solian Federation

Figure 4. Sonya Manuzzi[27]

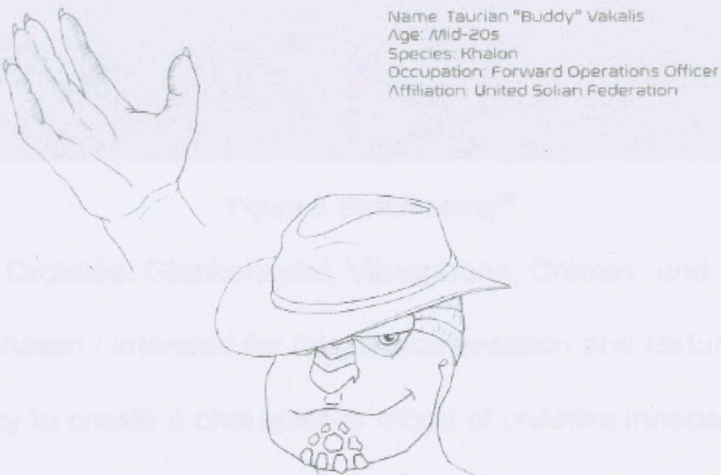
Name: Taurian "Buddy" Vakalis
Age: Mid-20s
Species: Khalon
Occupation: Forward Operations Officer
Affiliation: United Solian Federation

Figure 5. Taurian "Buddy" Valkalis[28]

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[27] Noelani Wood, *Finding Home Concept Art*

[28] Ibid.

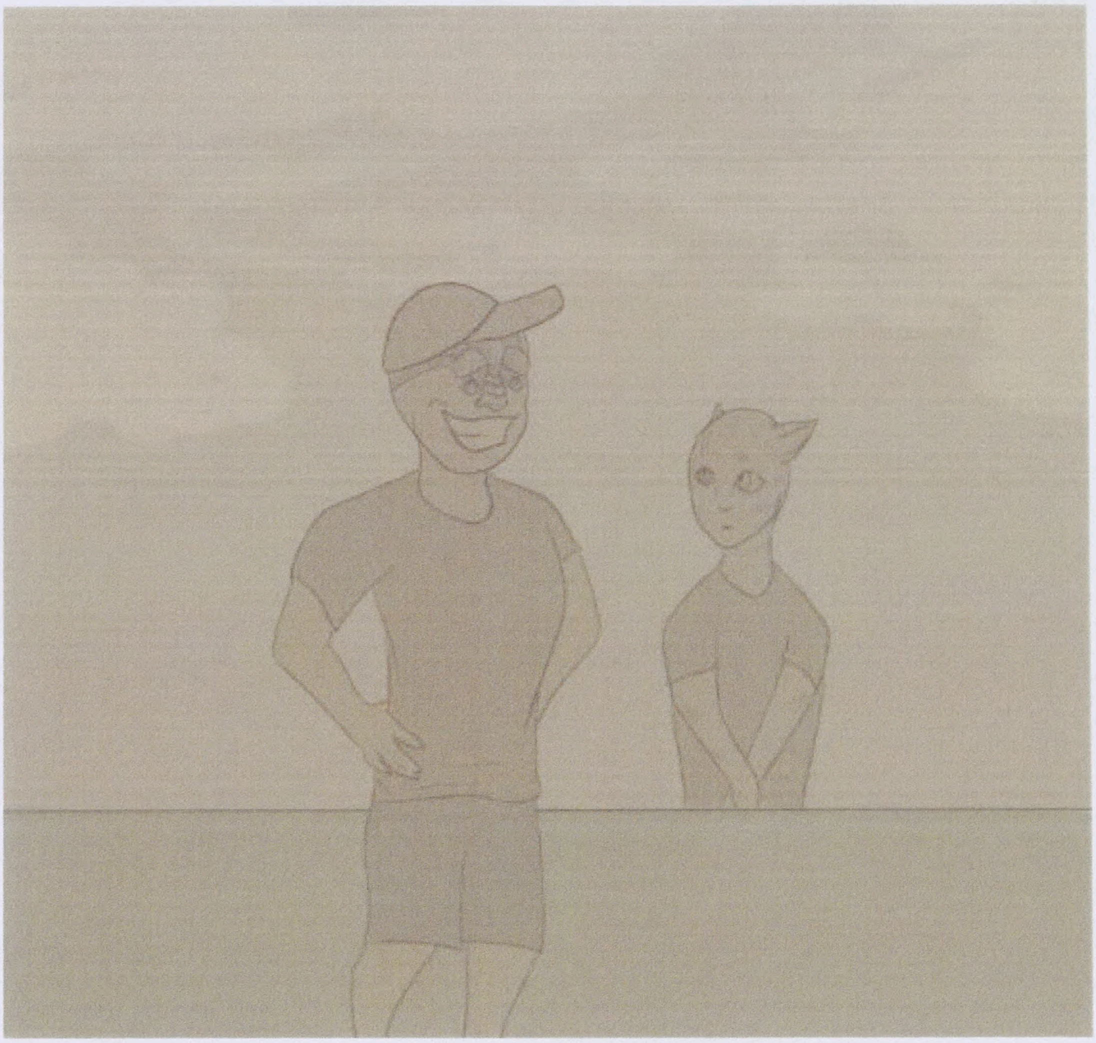

Figure 6. First Meeting[29]

Instrumentation: Crotales, Glockenspiel, Vibraphone, Chimes, and Triangle

Composition Process: I intended for this instrumentation and texture to sound like a music box as a way to create a character or mood of childlike innocence and nostalgia. I originally drafted this piece as a stand-alone piece to serve as a mock-video game track during my composition lessons last year. However, it only ever remained a work in progress and was never completed or performed. There were originally two parts of contrasting character, but I dropped second part for this project, as it did not evoke the right emotion. I added an introduction section and repeats, and a second section where the melody moves to a different voice and with a different accompaniment pattern in order to extend the track while adding more variety.

---

[29] Noelani Wood, *Finding Home Concept Art*

Review Comments: In the introduction section the emphasis was on beat two instead of beats one and three, which is normally what happens in 3/4 time. After consulting with Dr. Ogburn on how to move the emphasis to beats one and three, I shifted the chimes part and slightly changed the rhythmic structure of the opening section. I originally wrote this piece in alternating time signatures to fit the beginnings and endings of the phrases. At Dr. Ogburn's suggestion, I moved the piece to 4/4 in order to make it easier for performers to read. However, that had the unintended result of the beginnings and climaxes of phrases sometimes existing in unexpected places, like the middle of a measure. My solution was to keep the piece in 4/4 but add phrase markings and dynamic outlines of the phrases.

2.3 Flight Theme

Concept: This theme plays any time the player is in direct control of the main character's ship and not the main character herself. Rather than one loop, this track will consist of smaller loops of similar material that gets more unstable and dramatic the worse the condition of the player's ship becomes. The inspiration for this came from the Dreamcast/GameCube game *Skies of Arcadia*, which has a battle theme that transitions into different sections depending on the player's performance in battle.

Concept Art:

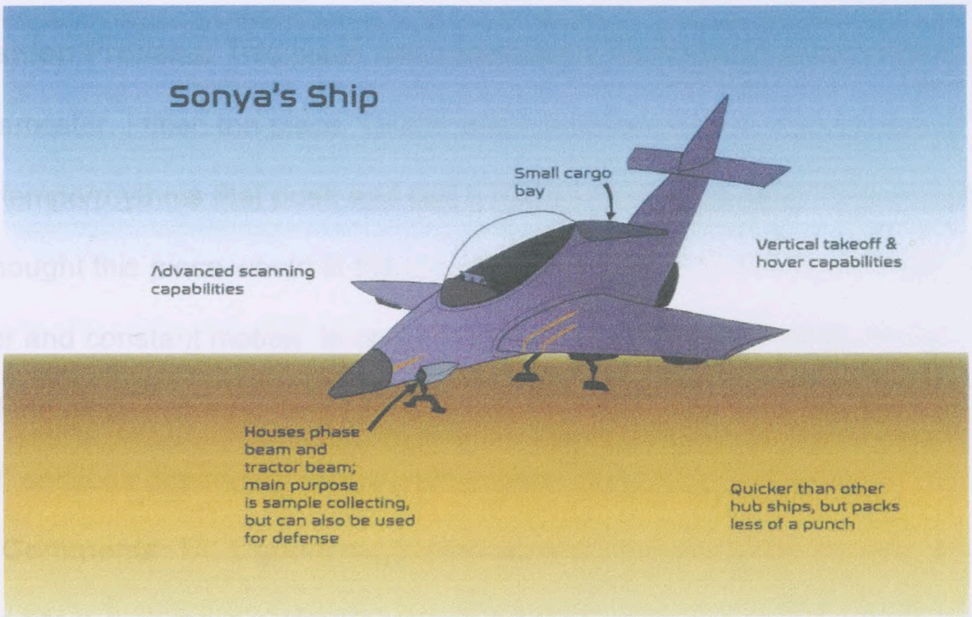
Sonya's Ship
Small cargo bay
Vertical takeoff & hover capabilities
Advanced scanning capabilities
Houses phase beam and tractor beam; main purpose is sample collecting, but can also be used for defense
Quicker than other hub ships, but packs less of a punch

Figure 7. Sonya's Ship[30]

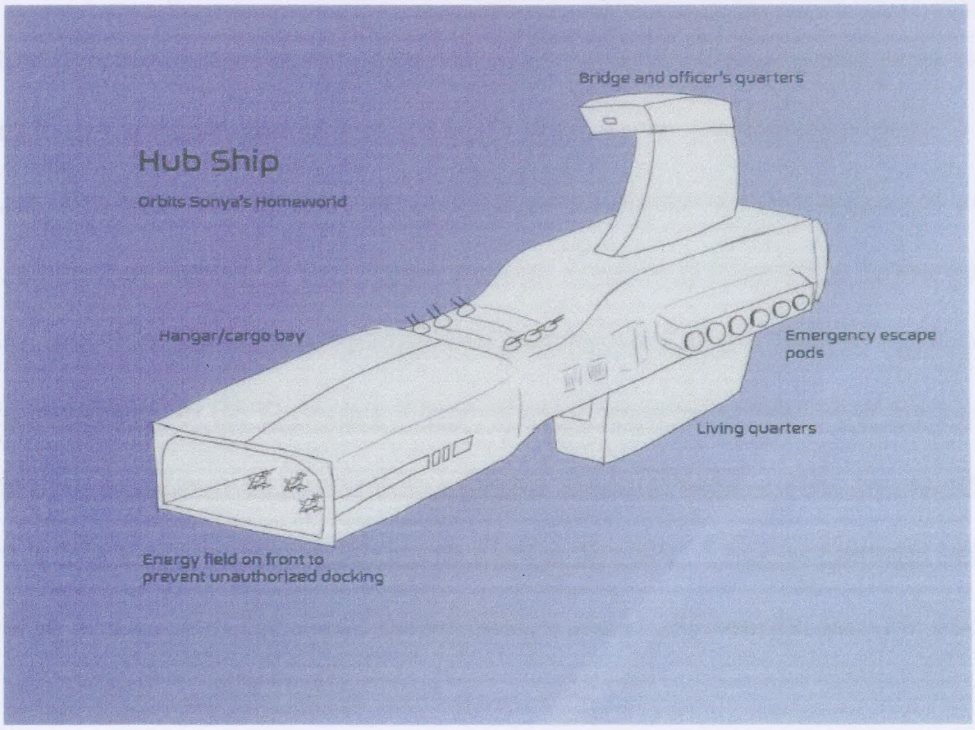
Bridge and officer's quarters
Hub Ship
Orbits Sonya's Homeworld
Hangar/cargo bay
Emergency escape pods
Living quarters
Energy field on front to prevent unauthorized docking

Figure 8. Hub Ship[31]

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[30] Noelani Wood, *Finding Home Concept Art*

[31] Ibid.

Instrumentation: Two glockenspiels, two vibraphones, drum set, and bass guitar

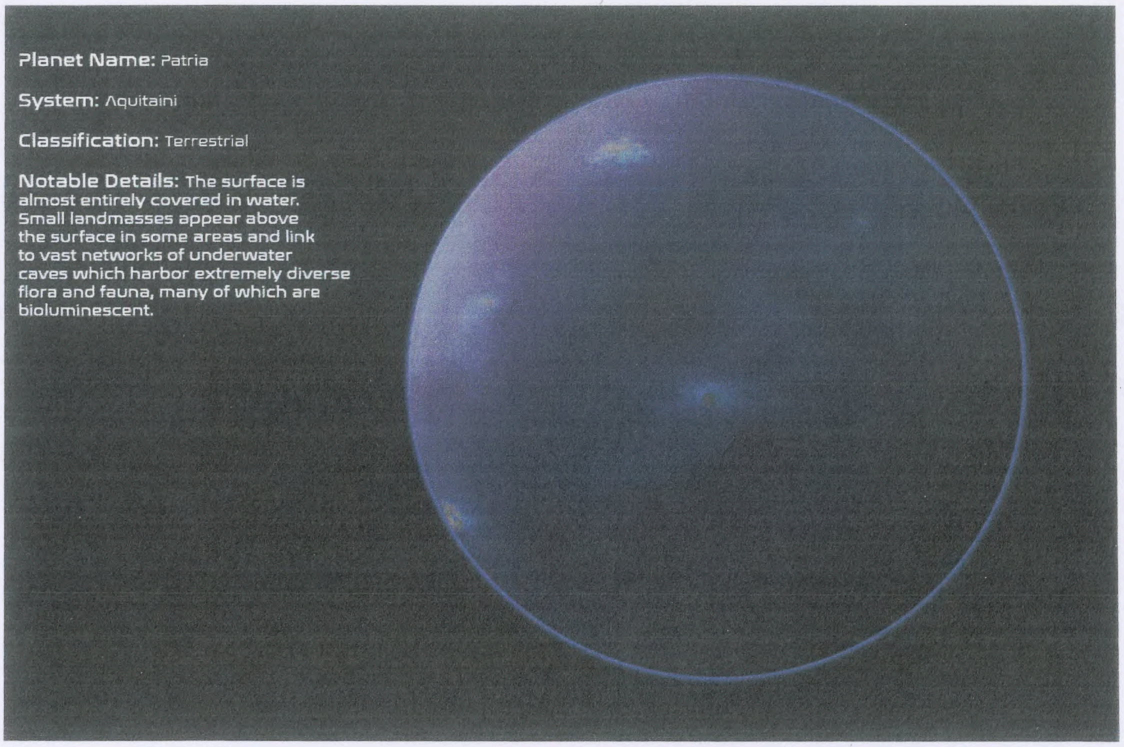
Composition Process: This piece was previously a stand-alone piece completed in an earlier semester. I titled the piece “Glitch” and it revolves around the concept of “sloppy time” or tempo/rhythms that push and pull a miniscule amount away from the steady beat. I thought this piece would fit the idea for the flight theme due to its bright, twinkling character and constant motion. In order to make it work as video game music, I chunked the piece into loop-able sections that would transition into more or less “glitched” sections depending on the performance of the player in game.

Review Comments: Dr. Ogburn suggested several changes to the notation in order to make the score look more professional and the parts easier to read for performers. I changed the beaming on standalone 8th notes that appear on the second half of the beat so that it beamed over rests. I also changed the 32nd note pick-ups in the bass guitar part to grace notes and changed the 8th notes in the glockenspiel parts to longer note values. Beyond notation changes, I cut the introduction section and bass solo sections, since they did not fit the looping format. Another problem that arose was that the second and third sections of looping sounded too similar and had an imperceptible change in instability. At Dr. Ogburn’s suggestions, I dropped notes out of the bass guitar part in the third section in order to make a bigger contrast between the two sections. I also did this to a lesser extent in the fourth section to make a bigger contrast between section three and section four while maintaining a steady digression through each section.

2.4 Patria Theme

Concept: Patria is a planet almost completely covered in water. On the surface, it looks dark and barren, but the ocean floor is shallow and covered in hydrothermal vents surrounded by rich biodiversity and life. Caves filled with air dot the surface of the planet. Patria receives very little light, but stays at almost tropical temperatures due to its dense atmosphere and the heat that escapes into the oceans from the planet's core. Due to the limited amount of natural light, a high occurrence of bioluminescence is observable among the wildlife.

Concept Art:



Planet Name: Patria

System: Aquitaini

Classification: Terrestrial

Notable Details: The surface is almost entirely covered in water. Small landmasses appear above the surface in some areas and link to vast networks of underwater caves which harbor extremely diverse flora and fauna, many of which are bioluminescent.

Figure 9. Patria[32]

Instrumentation: Two glockenspiels, two vibraphones, wind chimes, chimes, and gong

---

[32] Noelani Wood, *Finding Home Concept Art*

Composition Process: I composed this stand-alone work last year as a generic video game loop. I did not intend this piece for anything particular, but the floating character and use of metallic sounds made it fit well with the luminescent Patria. The only thing I changed to fit the thesis was instrumentation. This piece originally had three flute parts (which I reduced into one vibraphone part) and a piccolo part (which I transferred to glockenspiel). I also removed some special effects related to the flute (such as air blowing and glissandi).

Review Comments: I originally wrote this piece in a 5/4 time signature. At Dr. Ogburn suggestion, I changed it from 5/4 into 4/4. The piece does not have a strong metered feel, and although one of the ostinato patterns is written in a 5 note pattern, the other is written in a four note pattern, and 4/4 would be easier for performers to read.

2.5 Cavern Theme

Concept: The surface of Patria is dotted with dark, damp caves filled with air, many of which are inaccessible from the surface. This theme represents one of these caves that Sonya will explore in her search for Taurian.

Concept Art:

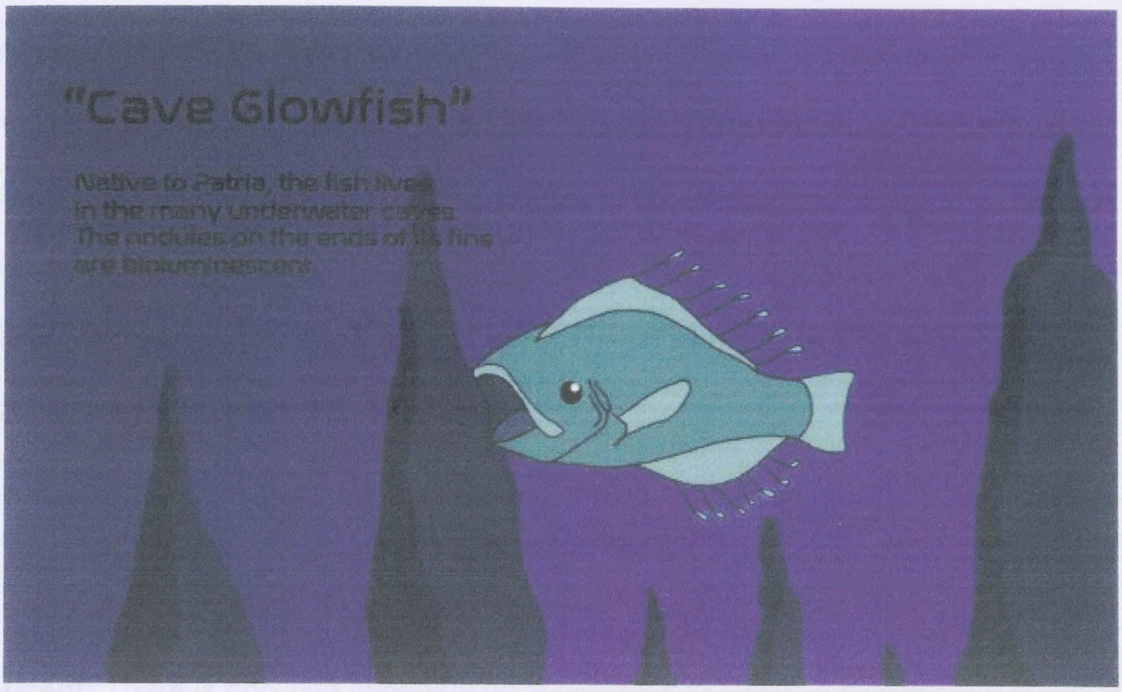

"Cave Glowfish"
Native to Patria, the fish lives
in the many underwater caves
The nodules on the ends of its fins
are bioluminescent

Figure 10. Cave Glowfish[33]

Instrumentation: Two marimbas, glockenspiel, gong, and wind chimes

Composition Process: I pulled the melody components of this piece from a section of a piece that I started in high school and never finished. It was based on the concept of rain forests reaching an environmental "tipping point" and becoming tropical grasslands. I only used one passage of the original material. Due to its dark character, I thought it would be an appropriate fit for the dark water cavern that Noelani had envisioned for Patria. The original instrumentation of this piece was clarinet quartet, so I changed to percussion to fit the rest of the soundtrack. I separated and combined each main line in different ways to give the track more length as well as a way to change color and character without changing the actual mood or thematic material of the piece.

---

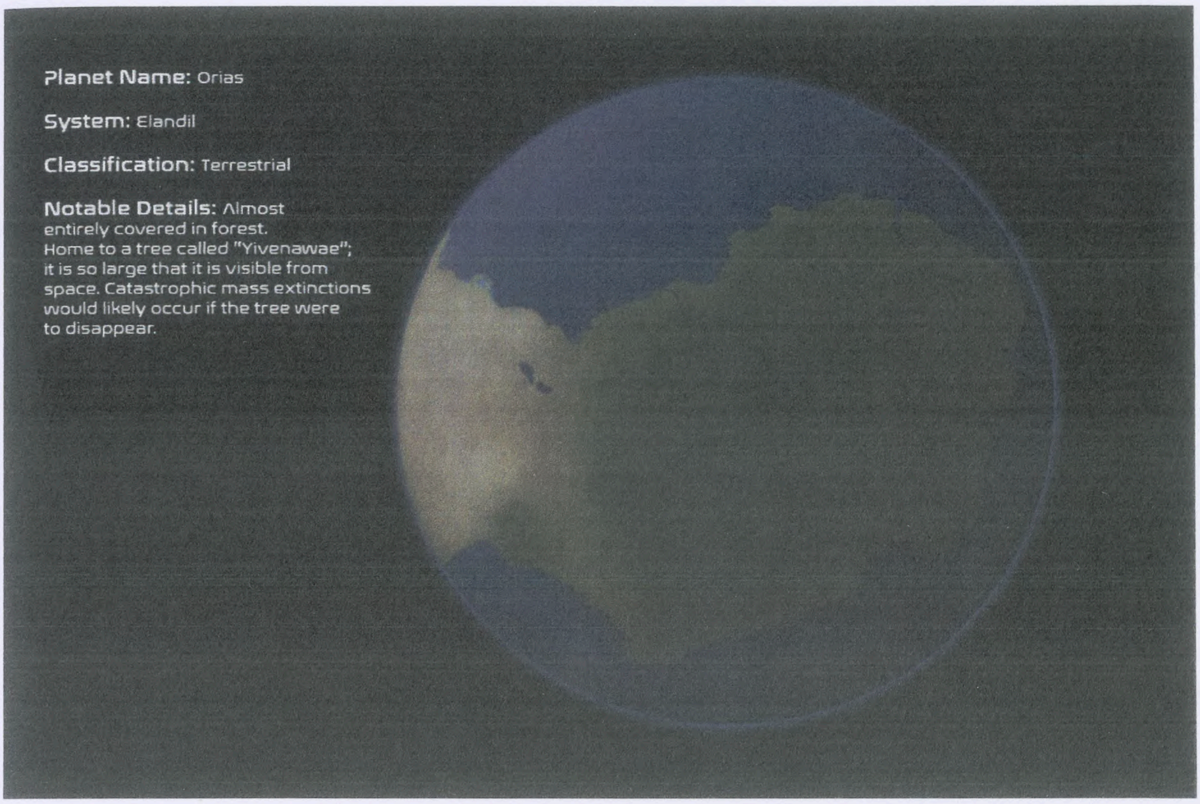
[33] Noelani Wood, *Finding Home Concept Art*

Review Comments: There were a few notation errors in the score. The tremolo markings that indicate rolls were missing, and one section of the upper marimba part would be easier to read had it been in bass clef. Dr. Ogburn also said that the piece lacked forward motion and suggested changing some rhythms in order to create that motion. For example, the melody line in measure 6 originally started with four sixteenth notes. I changed it to three in order to make the next downbeat feel more like a beginning and not a heavy arrival point.

2.6 Orias Theme

Concept: There is only one continent on the surface of Orias. A tropical rain forest of gigantic proportions consumes the majority of its surface. The atmosphere of Orias has such a high oxygen content that the majority of its inhabitants would dwarf the average humanoid. Mosquito like creatures the size of small dogs thrive in the warm, humid climate and even herbivores can pose fatal threat through sheer size.

Concept Art:



Planet Name: Orias

System: Elandil

Classification: Terrestrial

Notable Details: Almost entirely covered in forest. Home to a tree called "Yivenawae"; it is so large that it is visible from space. Catastrophic mass extinctions would likely occur if the tree were to disappear.

Figure 11. Orias[34]

Instrumentation: Three marimbas, gong, and wind chimes

Composition Process: I pulled the melody components for this piece from a previous composition for hand bells based on the change from autumn to winter. The original piece has three sections with contrasting character. Since I needed this track to fit a single, unchanging location, I chose the middle section only from the original work. This section was supposed to represent rain, which I thought would be perfect for the intense humidity of the rain-forest covered planet. I made extensive changes, particularly to the B section, where there was nothing for a listener to latch onto in terms of melodic content. I kept the structure of the B section and kept some small motives, but I rewrote the B entire section almost entirely. I also completely changed the instrumentation to fit with the rest of the soundtrack.

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[34] Noelani Wood, *Finding Home Concept Art*

Review Comments: At Dr. Ogburn's suggestion, I added an accent note in the upper voice in the B section that appears on the second time of the repeat only. This would add something to the second repeat so that it sounded less repetitive without having to compose an entirely new section.

2.7 Yivenawae Theme

Concept: At the very center of the rainforest of Orias sits a singular enormous tree known as Yivenawae. The circumference of the trunk alone is over 150 miles, with the canopy spreading approximately 7500 square miles. The uppermost reaches of the branches touch the ends of the atmosphere, close to 20 miles above the planet's surface. Yivenawae is visible from space and if it was destroyed it would likely cause mass extinctions across the entire planet of Orias.

Concept Art:

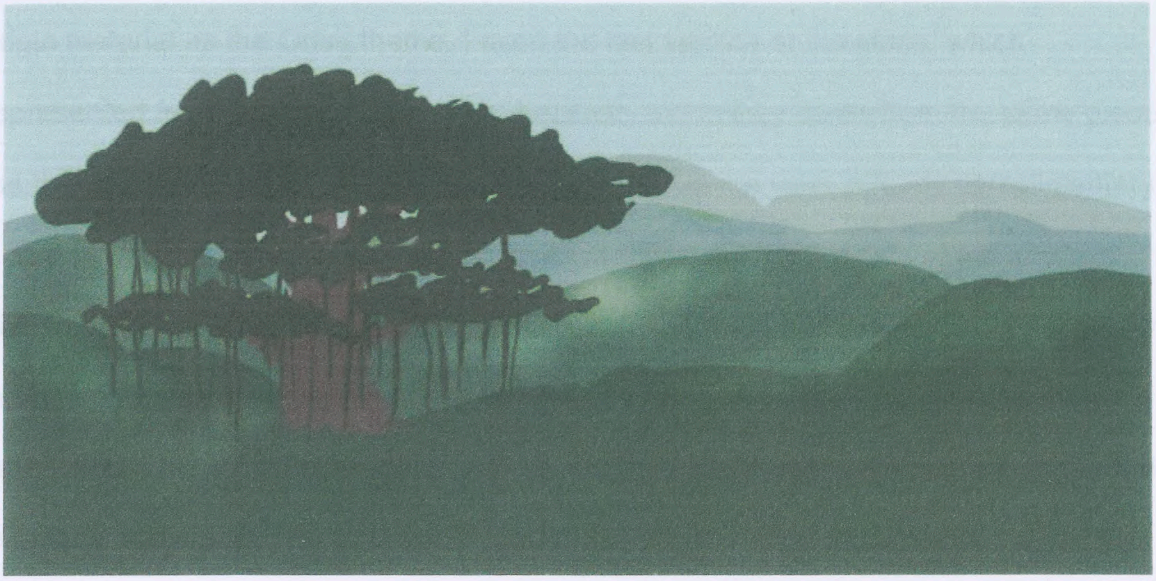

Figure 12. Yivenawae[35]

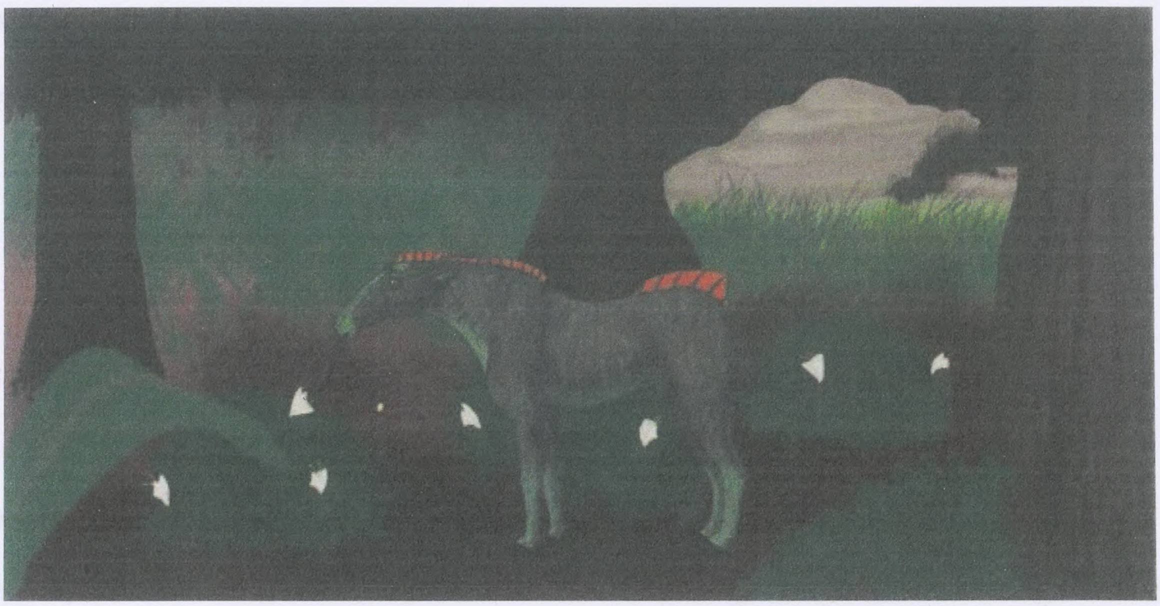

Figure 13. Under the Canopy[36]

Instrumentation: Two vibraphones, marimba, wind chimes, and gong

---

[35] Noelani Wood, *Finding Home Concept Art*

[36] Ibid.

Composition Process: I pulled the melody components for this piece from the same origin material as the Orias theme. I used the last section of the piece, which represented frost. I chose this material because, since they came from the same piece, the thematic material for this theme and the Orias Theme were already complimentary. It also had a calm, serene feel that I felt would represent the majesty of the tree well. Like the forest theme, I had to change the instrumentation from handbells to percussion, in order to fit into the rest of the soundtrack. I added pedal markings in the vibraphone parts to mimic the ring of handbells. I also added repeats and transition sections to turn the piece into a loop.

Review Comments: Dr. Ogburn pointed out that, except for the flight theme, my thesis lacked rhythmic complexity. In response, I changed the rhythms in the melody line in several places to include more syncopation and create more forward motion.

2.8 Reunion Theme

Concept: This track plays at the end of the game during an end credit cut scene when Sonya finally reunites with Taurian. Since it is a cut scene that will have an exact amount of time, it does not loop and instead transitions directly back into the opening theme, since in real games players return to the opening screen after watching the end credits of the game.

Instrumentation: Crotales, Glockenspiel, Vibraphone, Chimes, Triangle, Wind Chimes, and Suspended Cymbal

Composition Process: The artist Noelani and I only discussed creating seven movements. However, after I had completed movements one through seven, it felt as if the piece did not have a strong enough ending. Dr. Ogburn suggested either writing an end credits piece or something that represented the conclusion of the story in some way. I decided to do both by creating a cut scene track to play during the end credits. Since all other interaction shown between the main characters is done through flashbacks, I wanted this piece to compliment the Flashback Theme. In order to do that I used the unused melodic material from the same piece the Flashback Theme's melodic content came from and used a similar instrumentation and texture.

Review Comments: In the original draft of this piece, the crotales directly doubled the glockenspiel. However, due to the speed of the melody and the ring time of the crotales, the melody would quickly become muddy. Dr. Ogburn suggested removing the crotales part or changing it so that it was not an exact double of the melody. I made the tempo slower by twelve beats per minute and then removed most of the notes in the crotales part so that it only played on big beats and at the peaks of phrases. This removed all the issues caused by the original part.

3. Working with Live Musicians

3.1 Selecting Performers and Organizing Rehearsals

Not only did limiting my composition to percussion give the soundtrack a stronger sense of cohesion, it also cut down on the number of performers to schedule around and pay. Since this is a large-scale performance, it would also be necessary to speak with the applied professor of each student I would be using, and limiting myself to one studio meant I only had to make that request of one professor.

Dr. Vaillancourt is the percussion professor at Columbus State University. After I contacted him he gave me permission to work with his students, as long as I scheduled the performance after the percussion studio concert. He requested that I provide him with final copies of the scores for the entire soundtrack. Dr. Vaillancourt selected the performers himself after examining the scores, so I had no direct control over who performed my music. Dr. Vaillancourt also controlled scheduling rehearsals. Most rehearsals were held during the percussion ensemble's regular rehearsal time, so nothing extra had to be scheduled.

3.2 Paying Performers: SRACE Grant

Depending on how you count the loops, my soundtrack is approximately 20 to 30 minutes long. That is the same amount of time as a half-recital, which music students usually take as a course. Since my music is not a part of the standard body of repertoire for percussionists, they would not be able to count my lecture recital as their half recital, and therefore I would be asking them to complete an entire class' worth of work for no credit.

Since the performers would not be receiving class credit, it is therefore necessary to offer them monetary compensation. I applied for a Student Research and Creative Endeavors (SRACE) Grant through Columbus State University and was rewarded the maximum amount of $300. In addition to the concept artist Noelani Wood, I needed five performers to play my music, making six people total. I divided the $300 equally among all six people for a total of $50 each.

4. Conclusion

In doing this project, I was able to transfer research and actively apply it to the music creating process. Collaborating with Noelani Wood and Dr. Ogburn allowed me to gain real world career skills in a field I am interested in. Working with live performers allowed me to hear what I had written on paper and understand what worked the way I wanted it to and what did not. I also gained knowledge and skill concerning how to make a score and parts publication quality.

When a composer is commissioned to write a soundtrack, they are given concept art and other material related to the overall project, and someone oversees or approves their work. I satisfied the first condition by collaborating with a local artist named Noelani Wood to create a game concept and concept art upon which to base my compositions. I satisfied the second condition by bringing each of the tracks into my composition lessons with Dr. Ogburn and making revisions based on his suggestions. Each of the tracks in my project were inspired by an event or location developed by Noelani Wood. I applied compositional techniques used in video game music to each track. By creating a situation similar to what a video game composer would experience while working on a soundtrack and using compositional techniques used by video game composers, I have created a body of work representative of a video game soundtrack.

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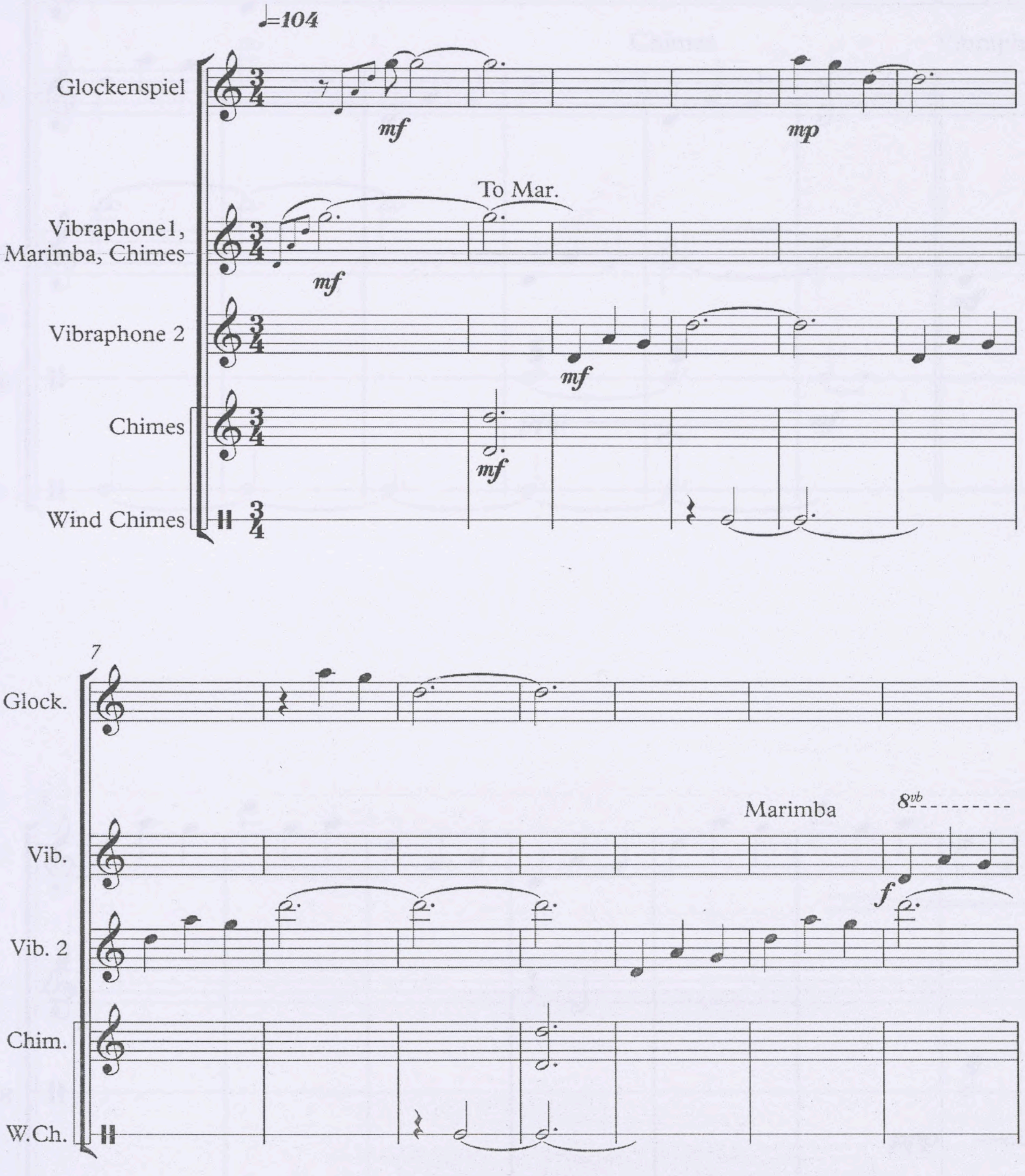
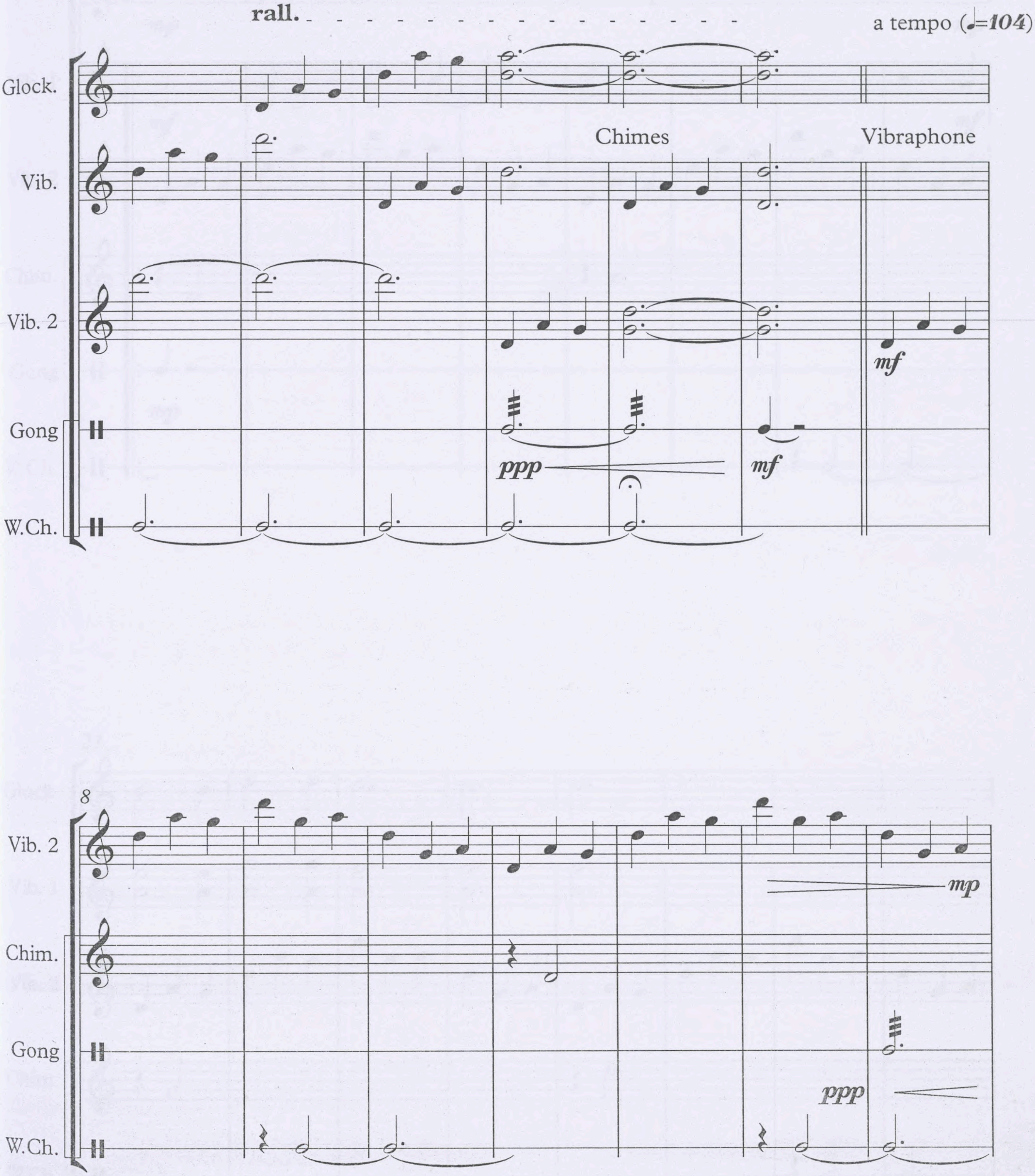
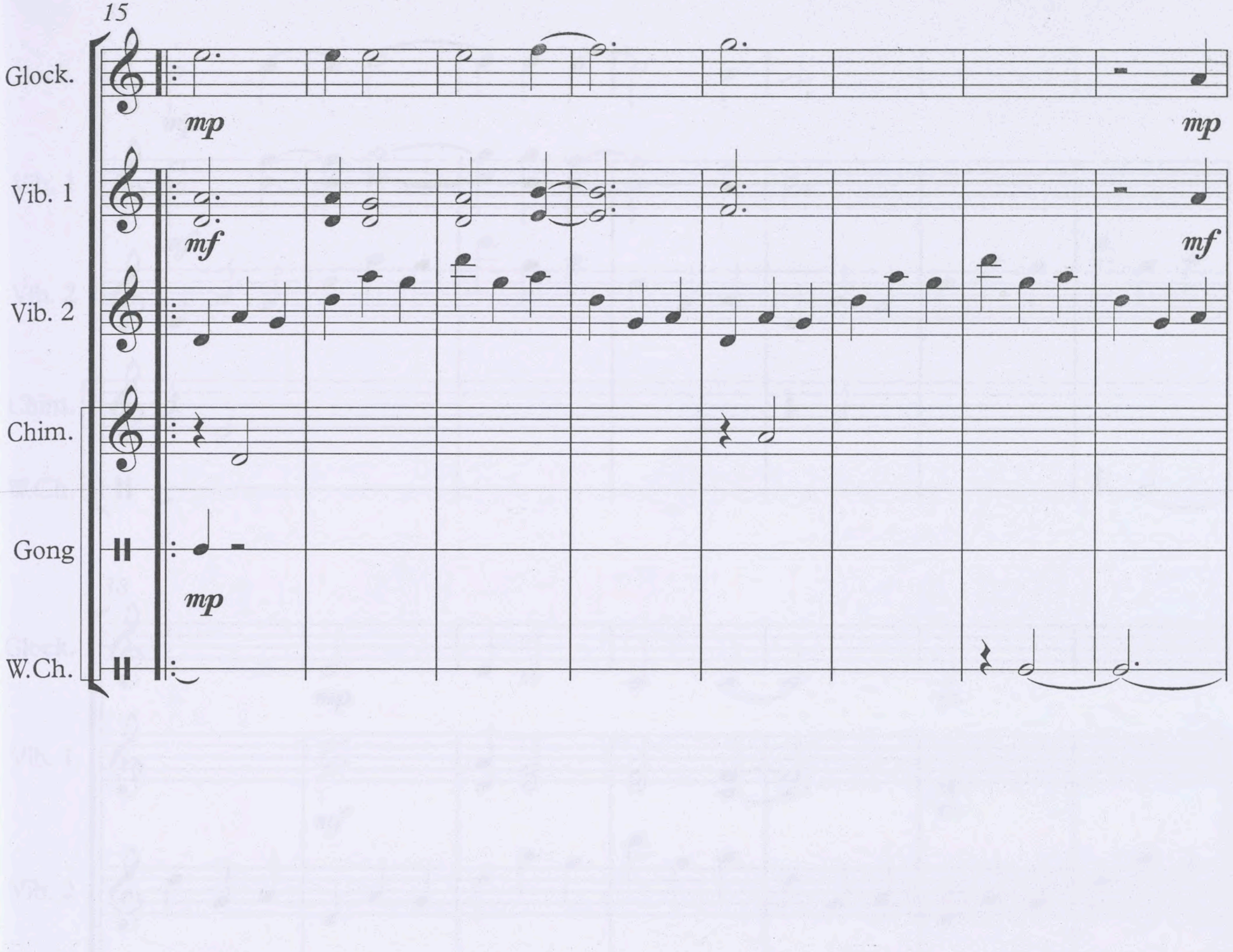
Appendix: Scores

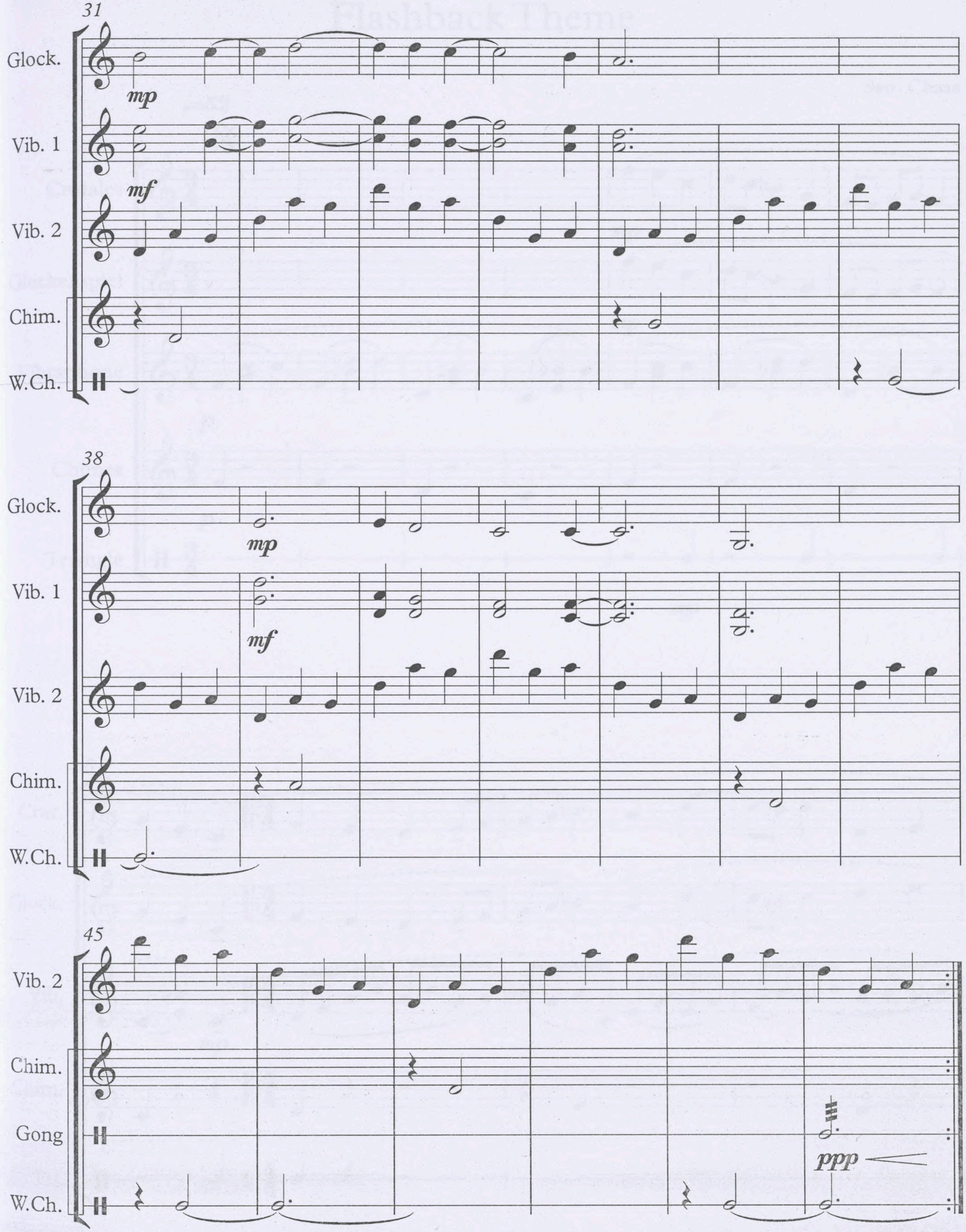
Opening Theme

Sam Chase


♩=104
Glockenspiel
mf
mp
To Mar.
Vibraphone1, Marimba, Chimes
mf
Vibraphone 2
mf
Chimes
mf
Wind Chimes
7
Glock.
Marimba
8vb
Vib.
f
Vib. 2
Chim.
W.Ch.

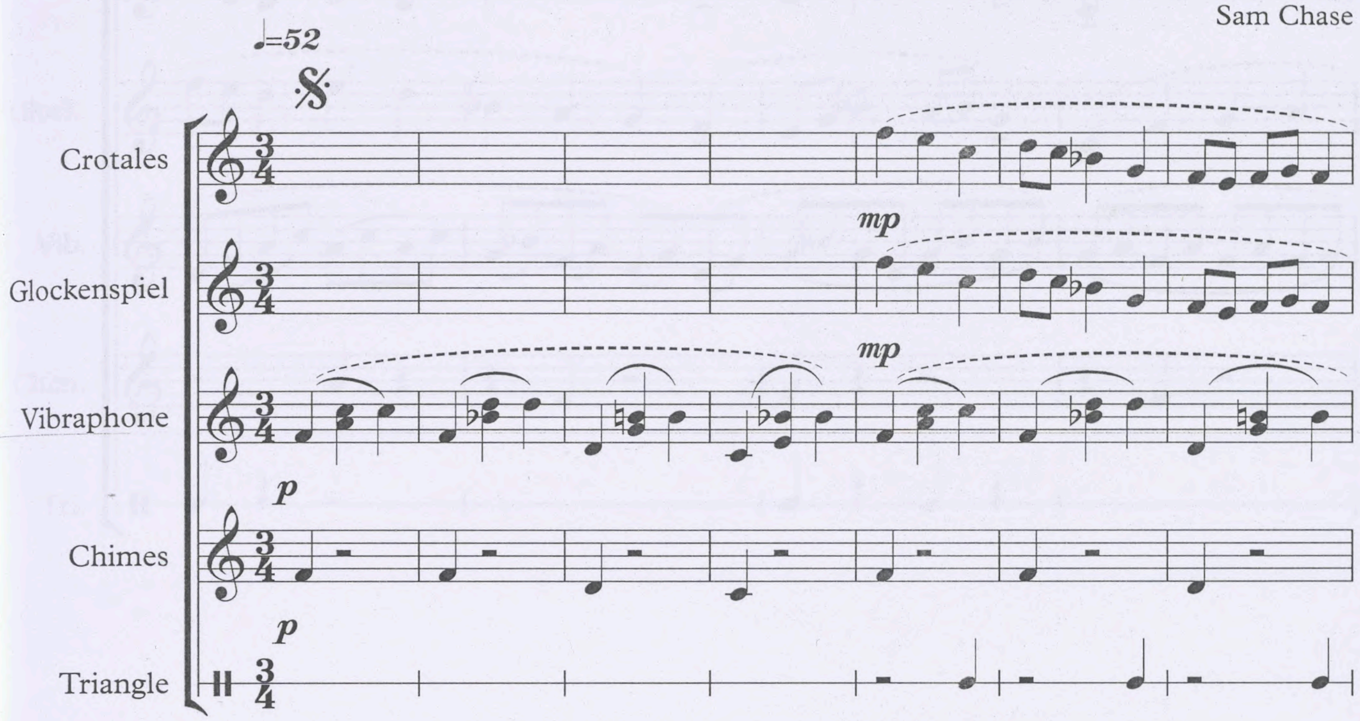

rall.
a tempo (♩=104)
Glock.
Vib.
Chimes
Vibraphone
Vib. 2
mf
Gong
ppp
mf
W.Ch.
8
Vib. 2
mp
Chim.
Gong
ppp
W.Ch.

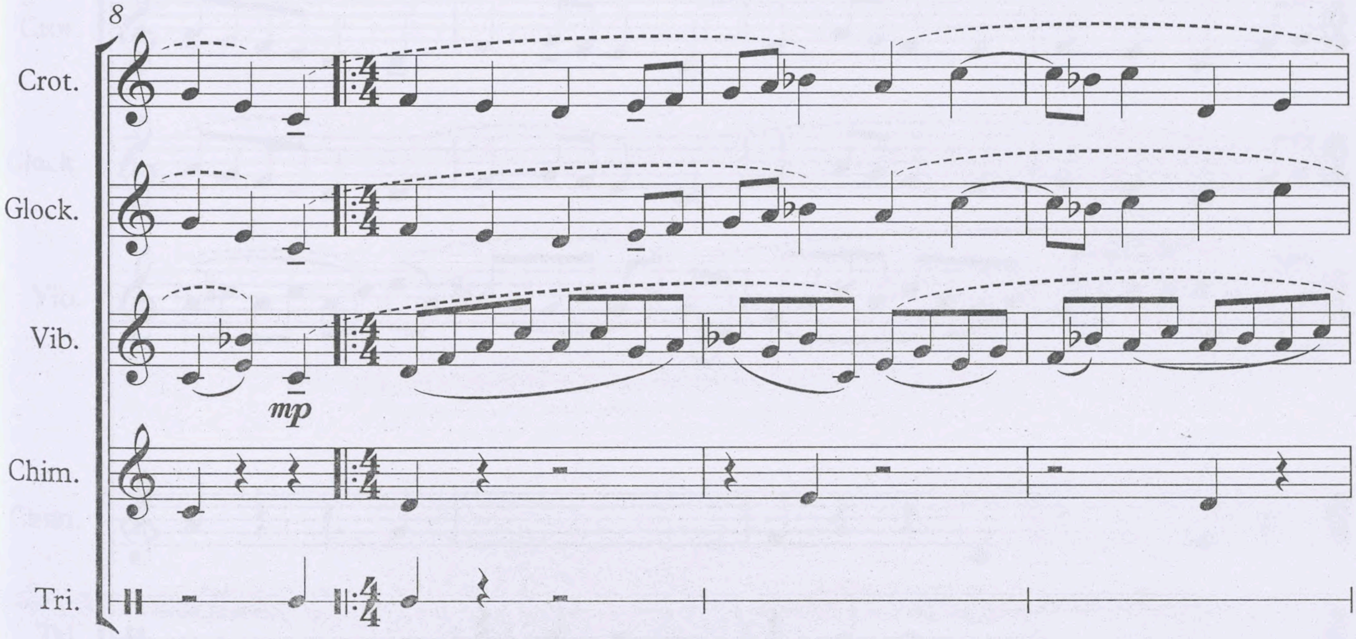

15
Glock.
mp
mp
Vib. 1
mf
mf
Vib. 2
Chim.
Gong
mp
W.Ch.
23
Glock.
Vib. 1
Vib. 2
Chim.
W.Ch.

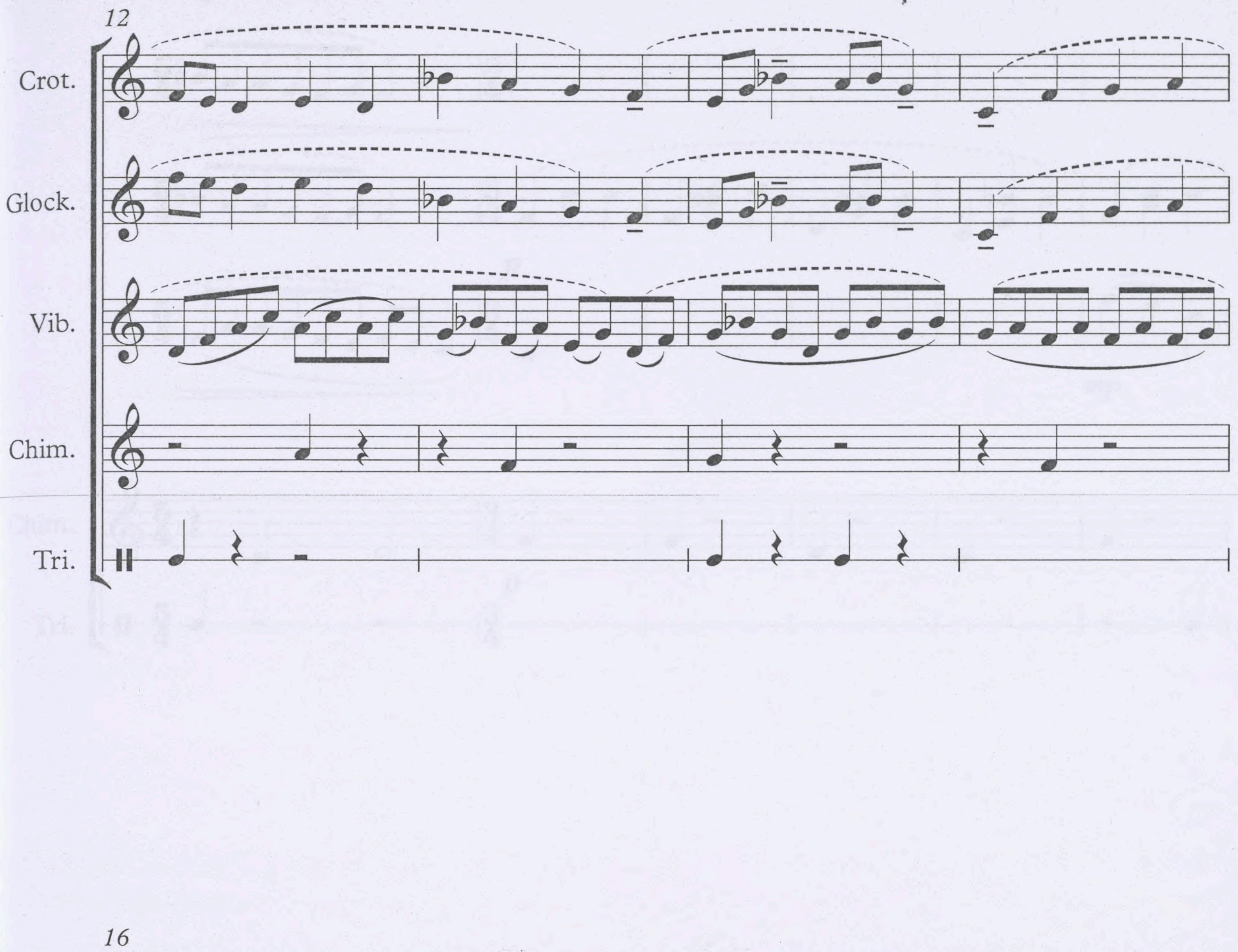

31
Glock.
mp
Vib. 1
mf
Vib. 2
Chim.
W.Ch.
38
Glock.
mp
Vib. 1
mf
Vib. 2
Chim.
W.Ch.
45
Vib. 2
Chim.
Gong
ppp
W.Ch.

Flashback Theme

Sam Chase


♩=52
Crotales
Glockenspiel
Vibraphone
Chimes
Triangle
mp
mp
p
p
mp


8
Crot.
Glock.
Vib.
Chim.
Tri.
mp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Vib.
Chim.
Tri.
16
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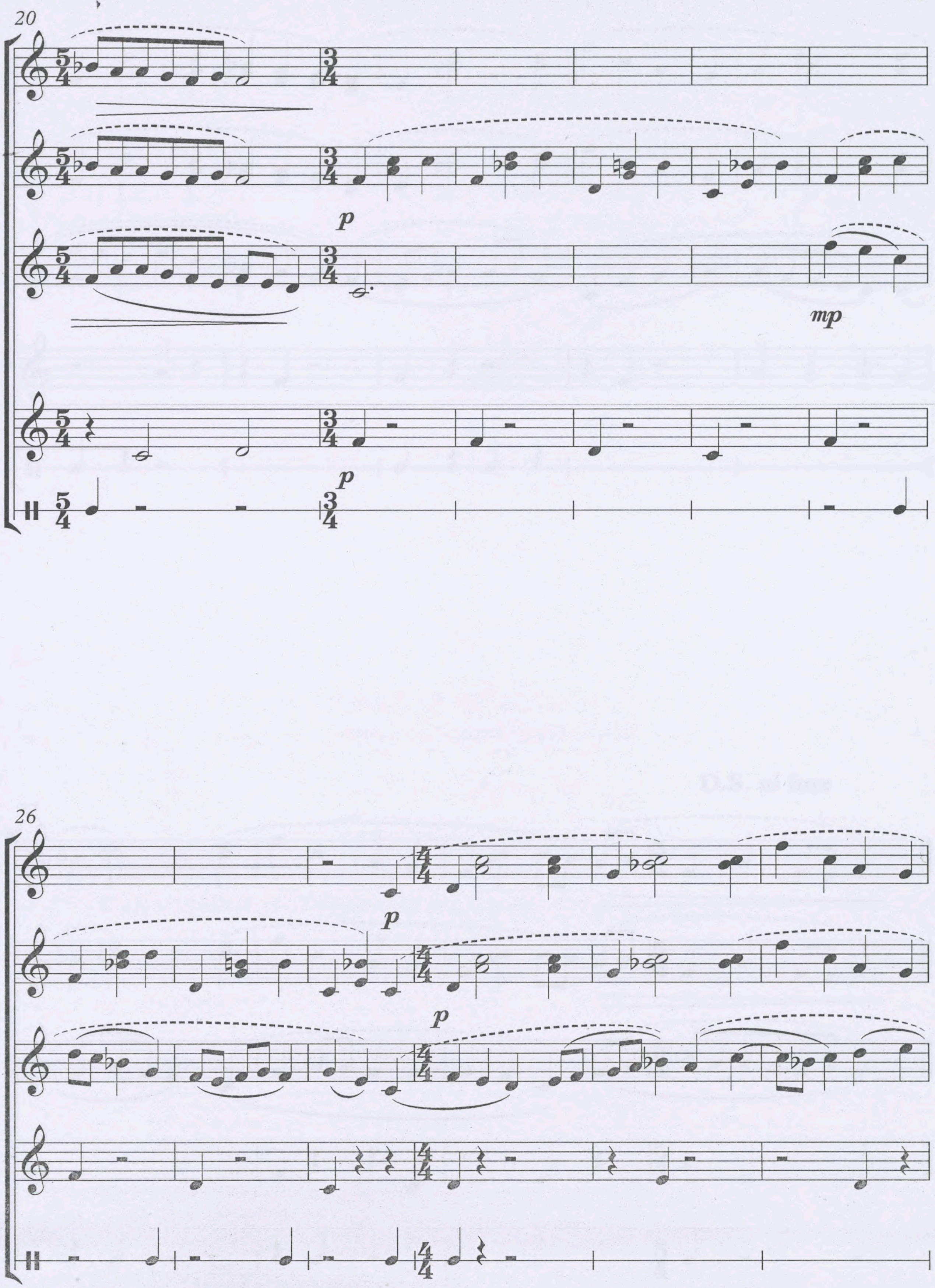
Glock.
Vib.
Chim.
Tri.
5
4


20
Crot.
Glock.
Vib.
Chim.
Tri.
p
p
mp
26
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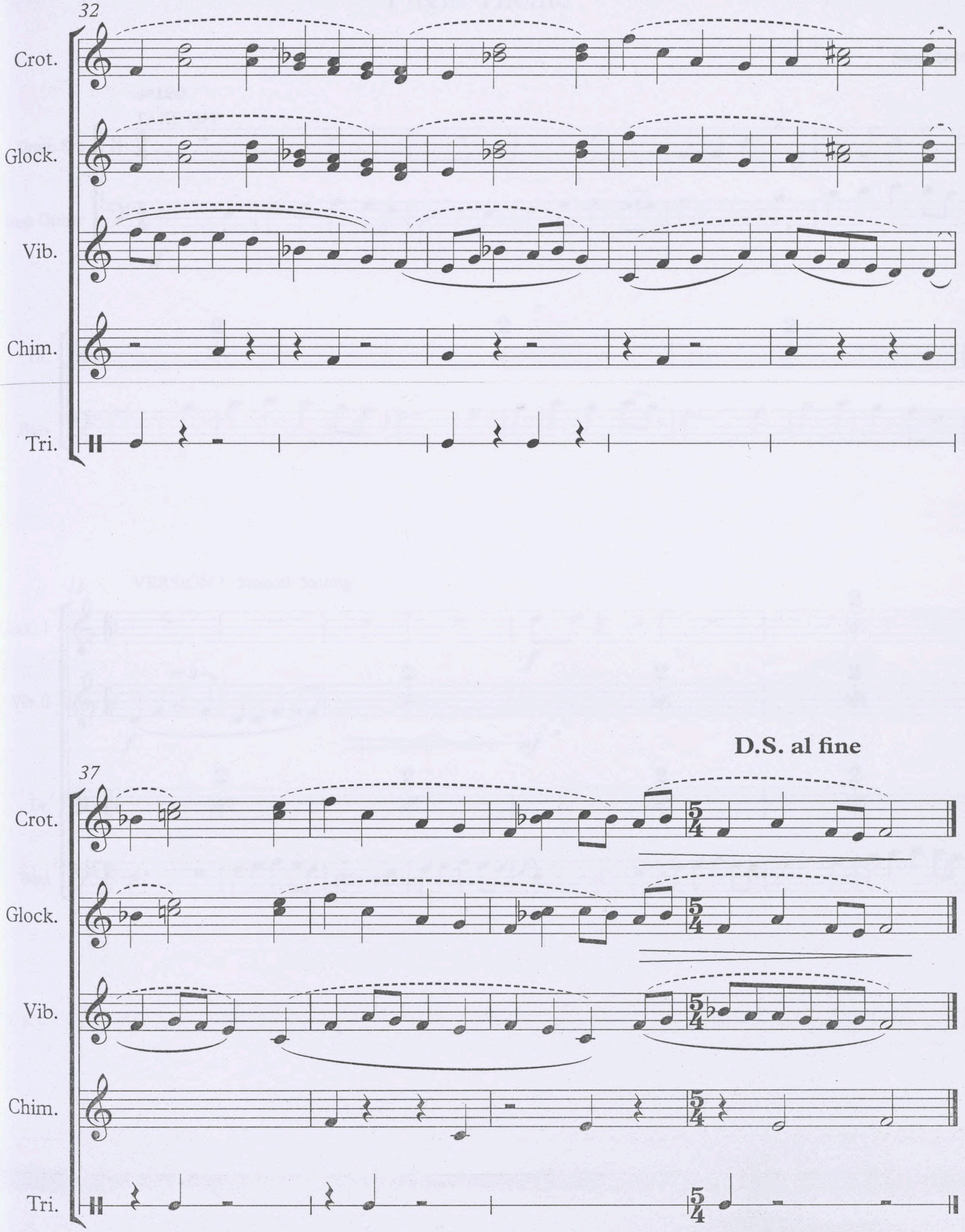
Glock.
Vib.
Chim.
Tri.
p
p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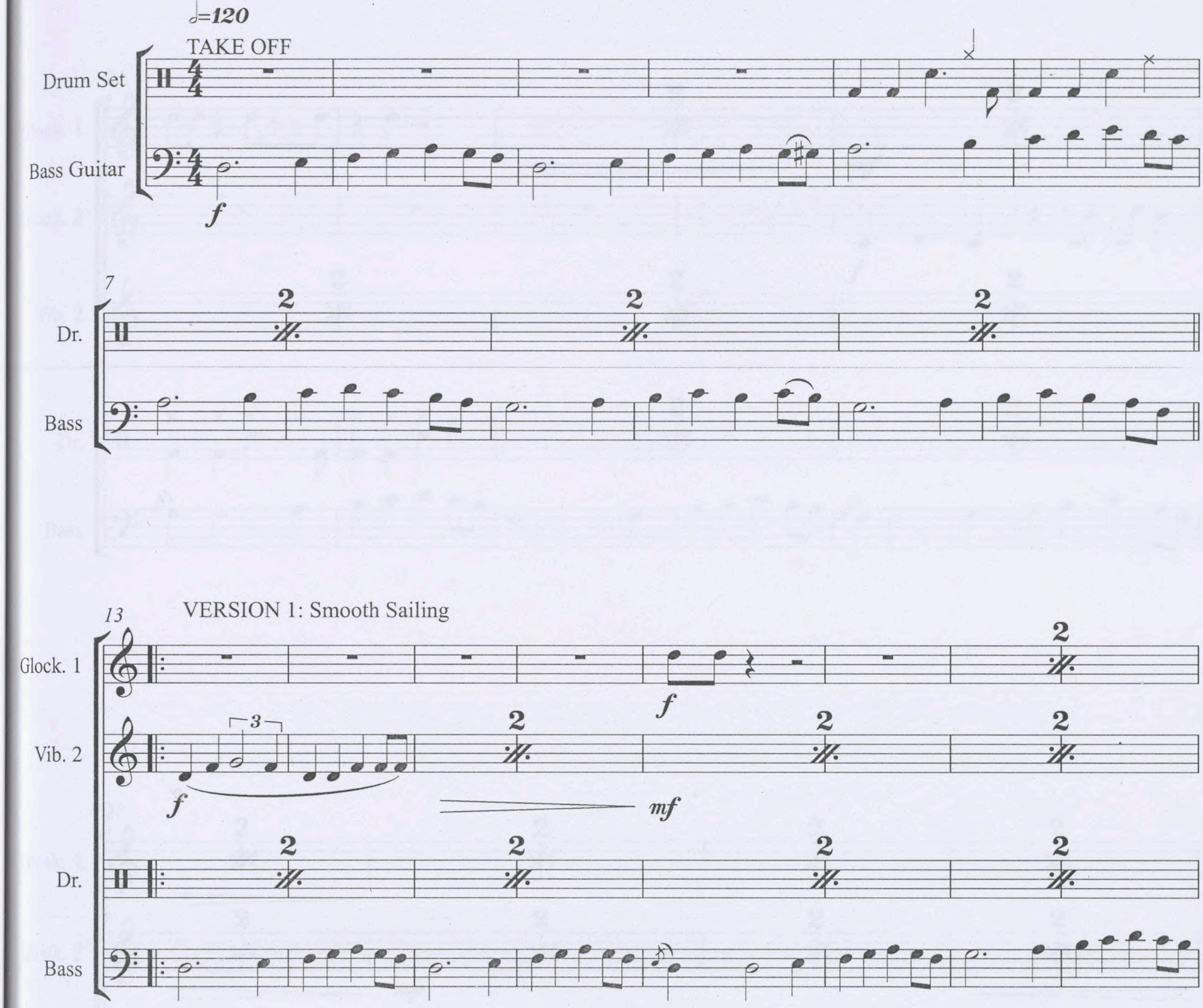
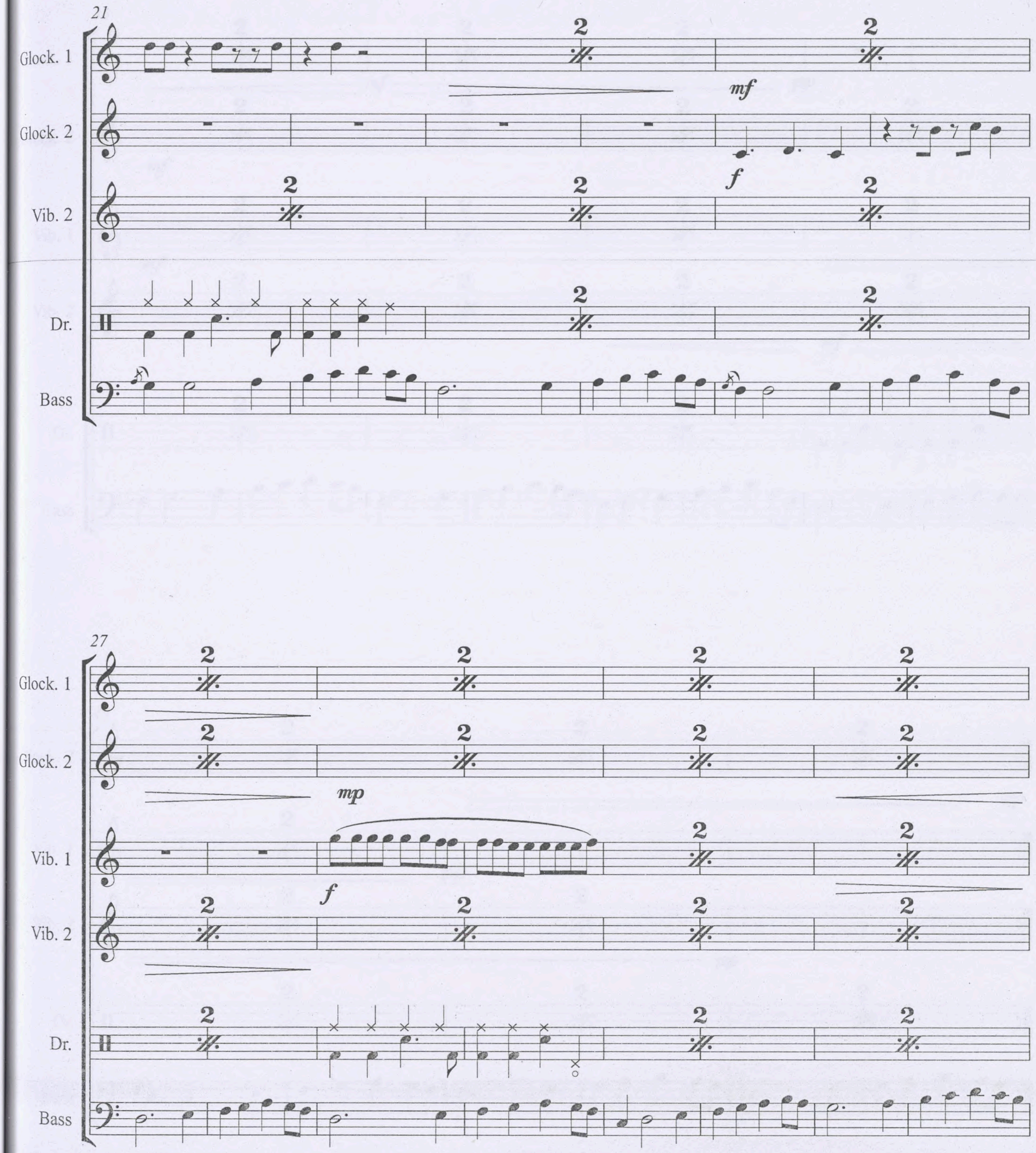
Crot.
Glock.
Vib.
Chim.
Tri.
D.S. al fine
37
Crot.
Glock.
Vib.
Chim.
Tri.

Flight Theme

Sam Chase


𝅗𝅥=120
TAKE OFF
Drum Set
Bass Guitar
f
7
Dr.
Bass
2
2
2
13
VERSION 1: Smooth Sailing
Glock. 1
Vib. 2
Dr.
Bass
3
f
f
mf
2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Dr.
Bass
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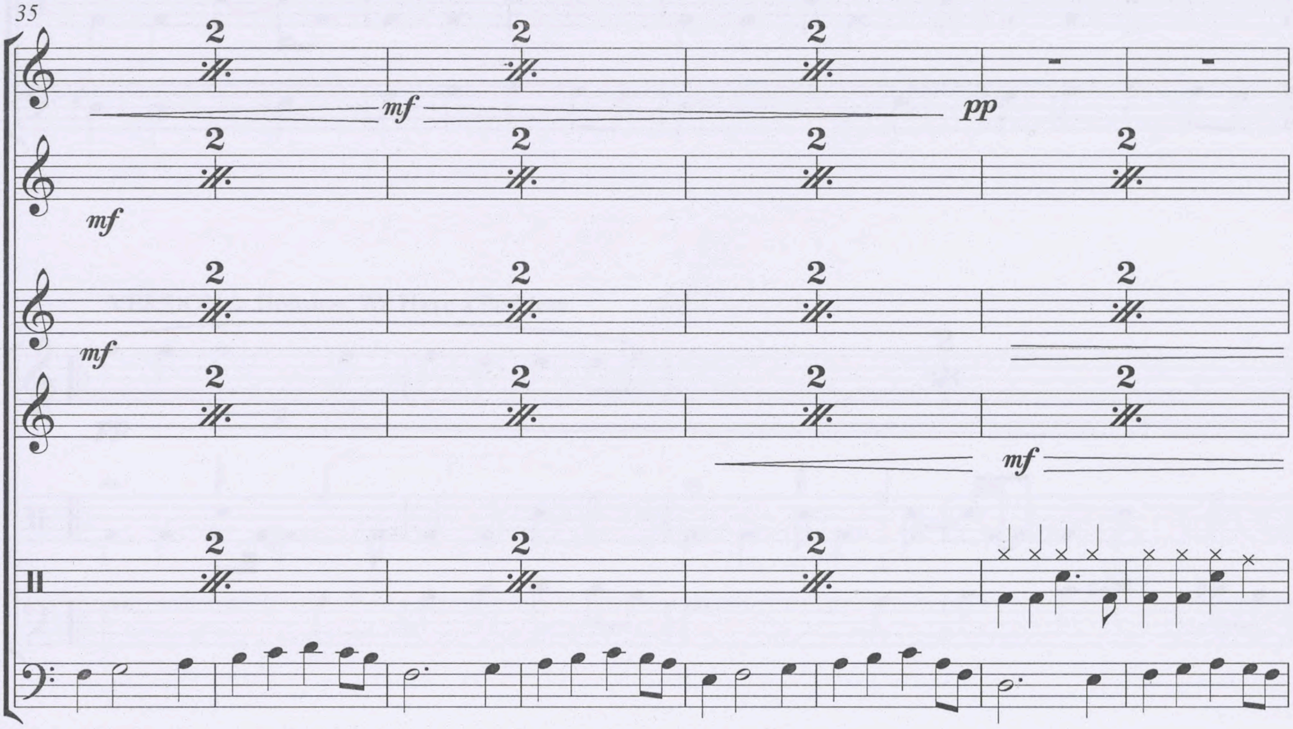
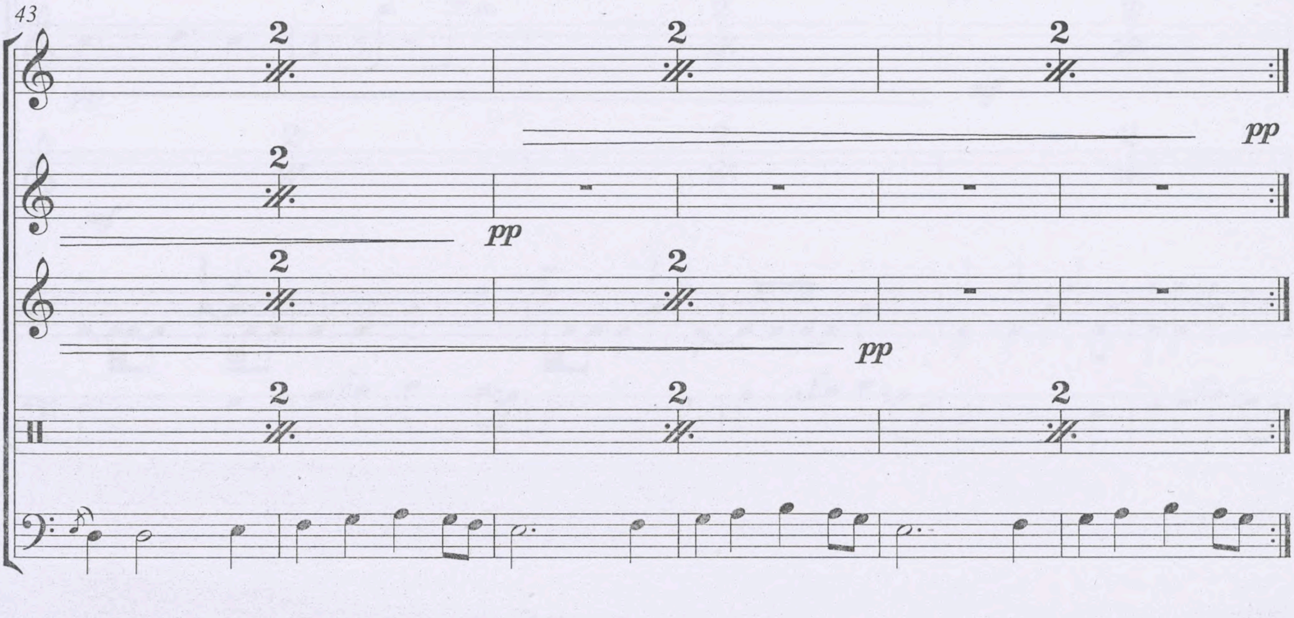
mp
f


35
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
mf
pp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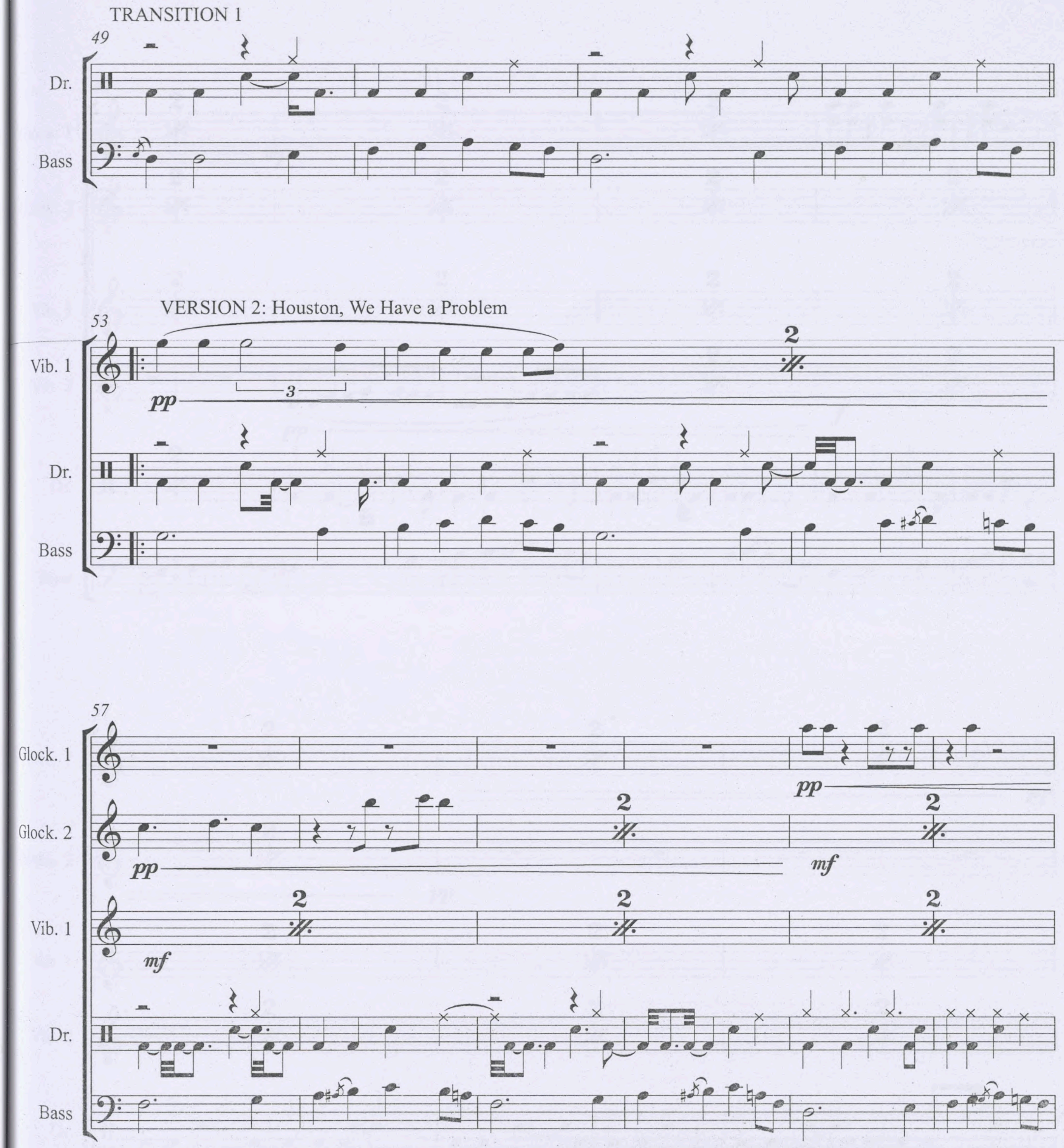
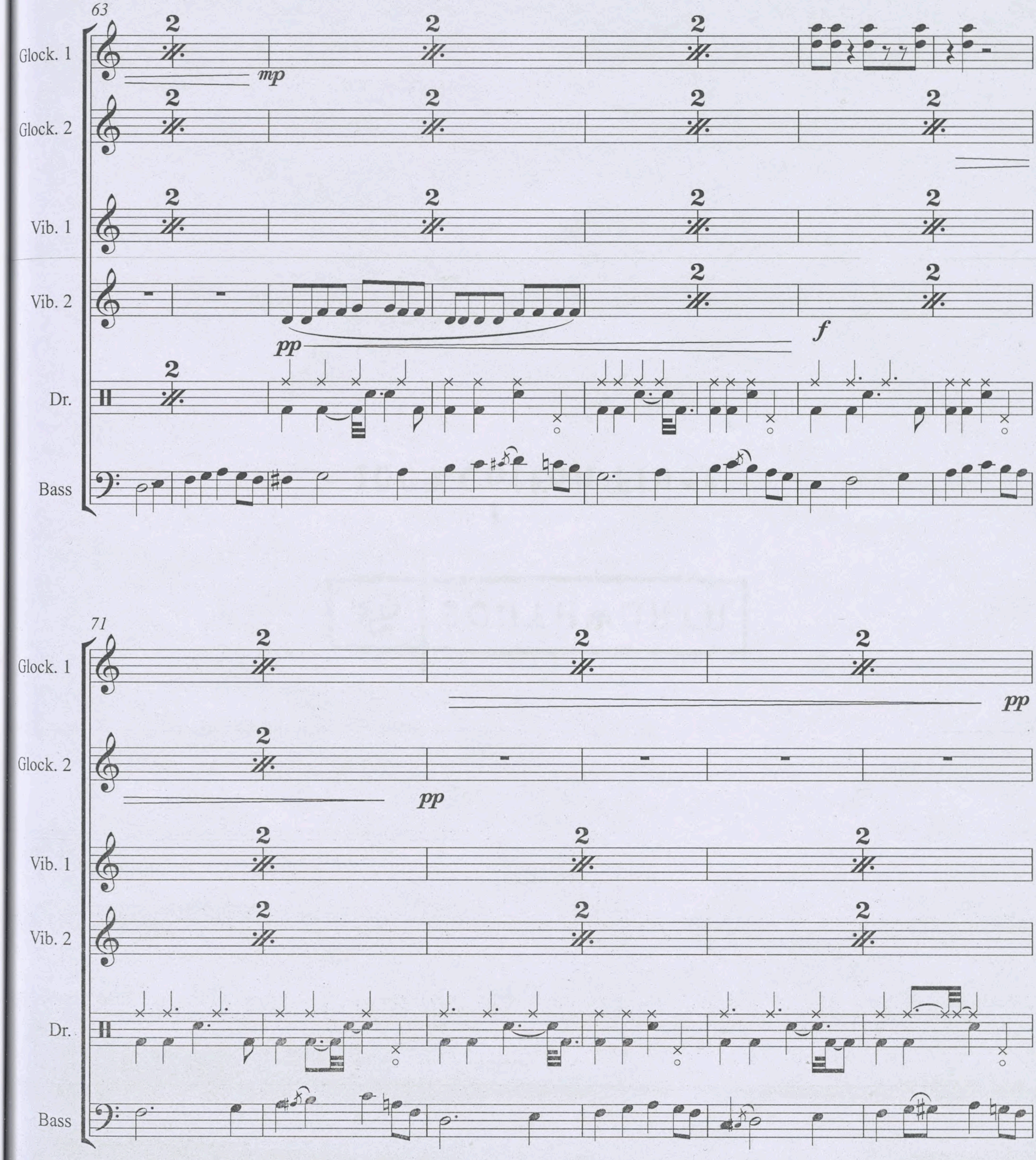
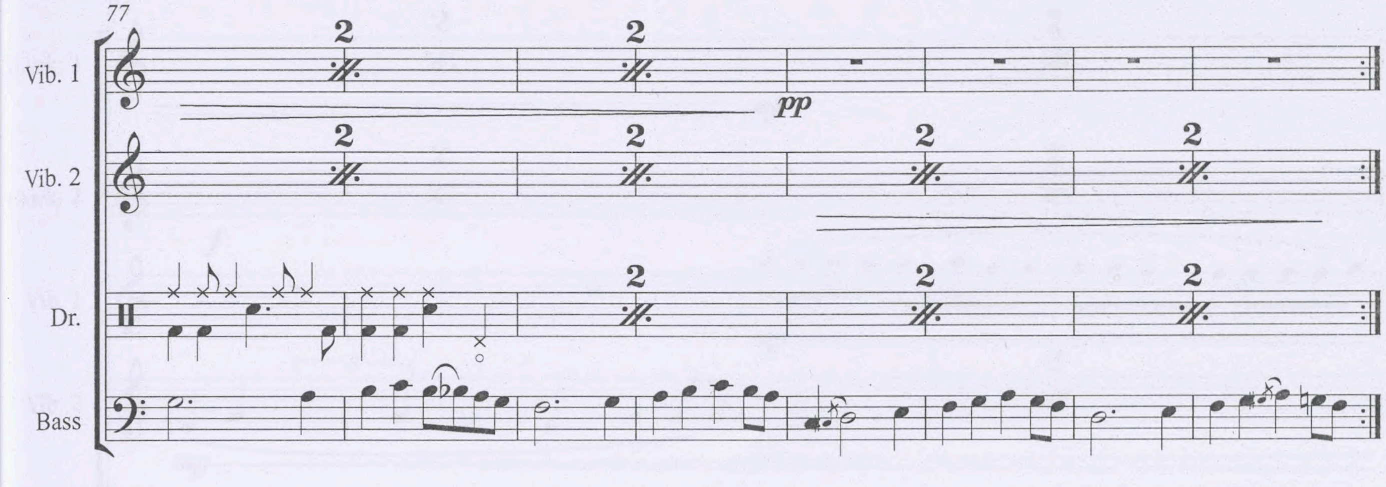
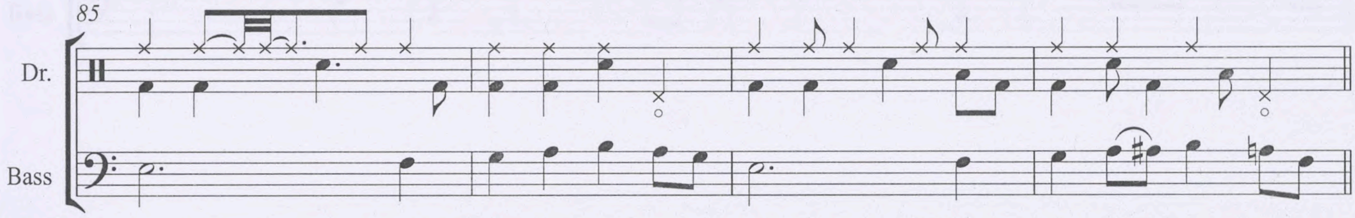
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
pp


TRANSITION 1
49
Dr.
Bass
VERSION 2: Houston, We Have a Problem
53
Vib. 1
3
pp
2
Dr.
Bass
57
Glock. 1
Glock. 2
Vib. 1
Dr.
Bass
pp
mf
2
pp
2
mf
2
2
2

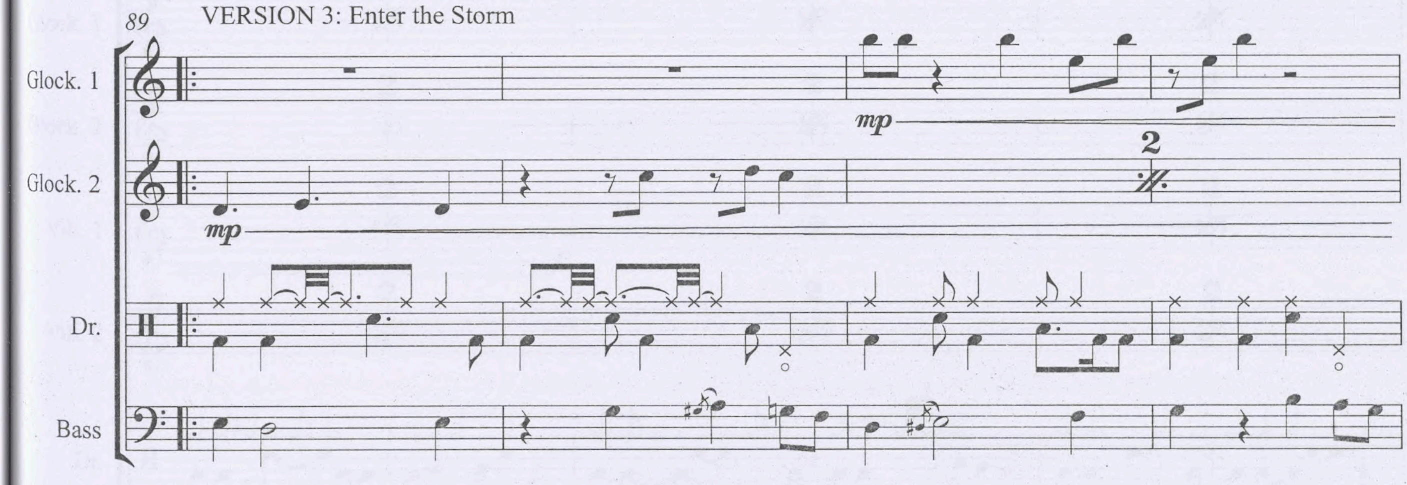

63
Glock. 1
mp
Glock. 2
Vib. 1
Vib. 2
pp
f
Dr.
Bass
71
Glock. 1
pp
Glock. 2
pp
Vib. 1
Vib. 2
Dr.
Bass


77
Vib. 1
Vib. 2
Dr.
Bass
2
2
2
2
2
2
2
2
pp

TRANSITION 2



VERSION 3: Enter the Storm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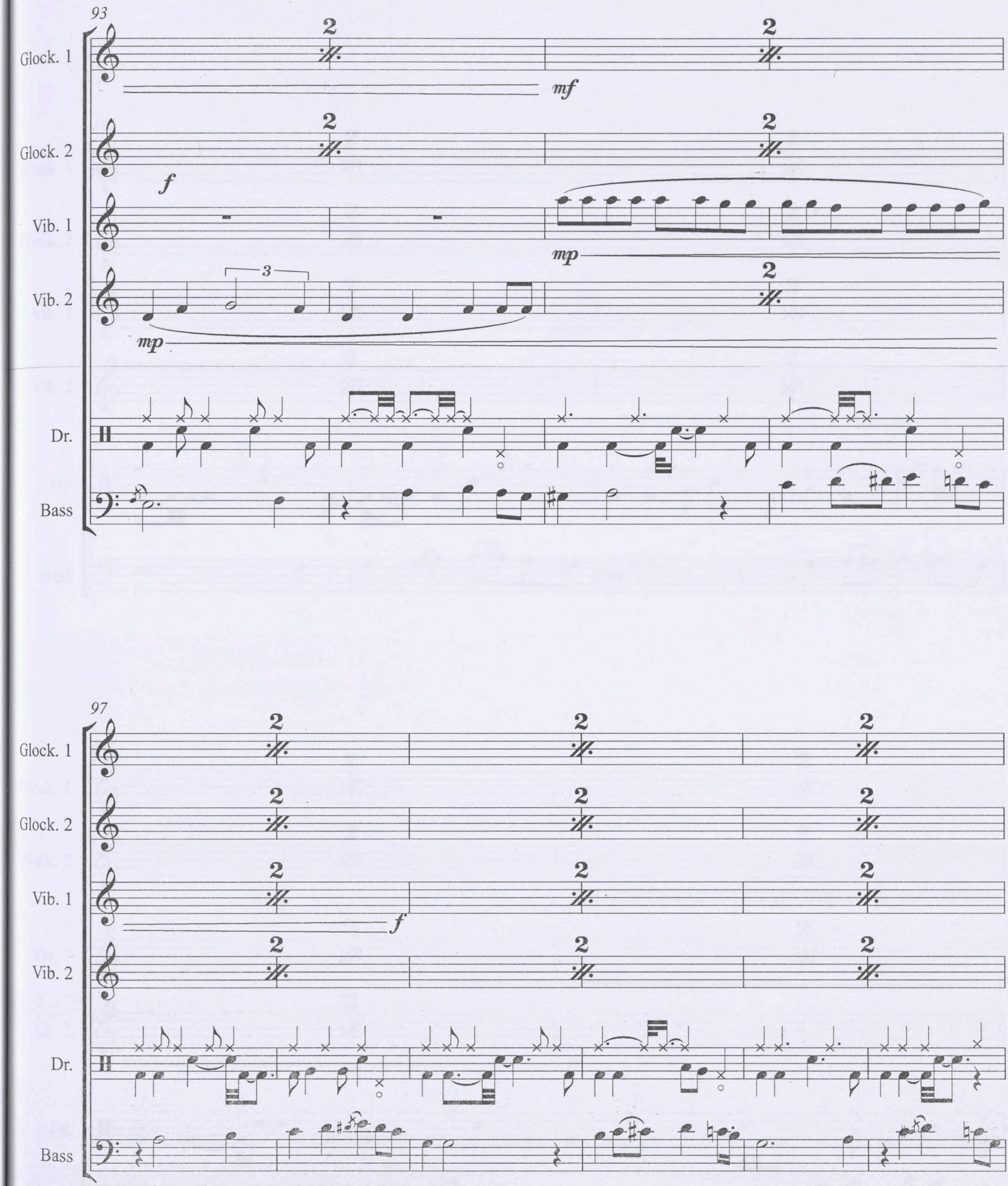
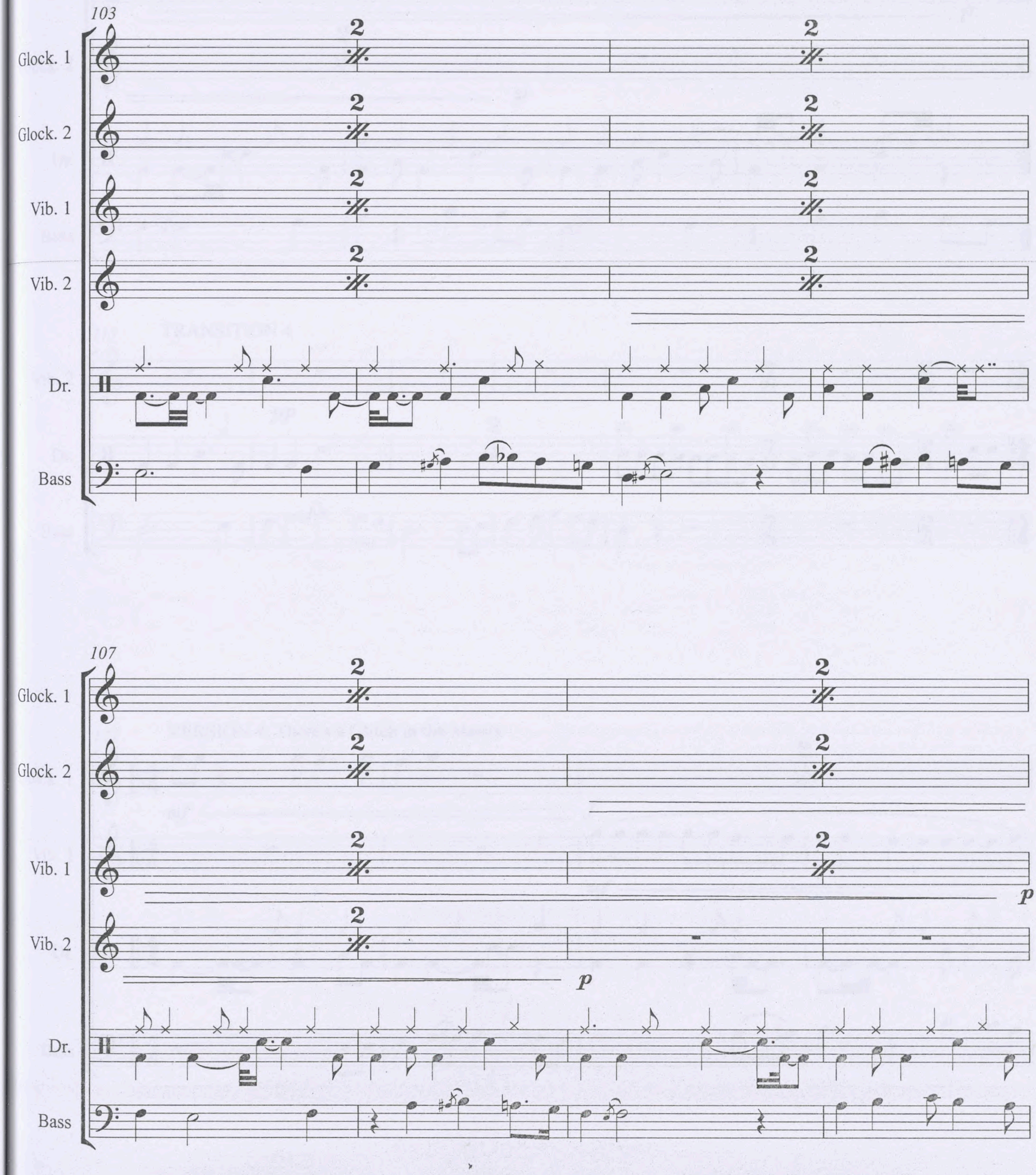
Glock. 2
Dr.
Bass
mp
mp
2


93
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
mf
f
mp
3
97
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
f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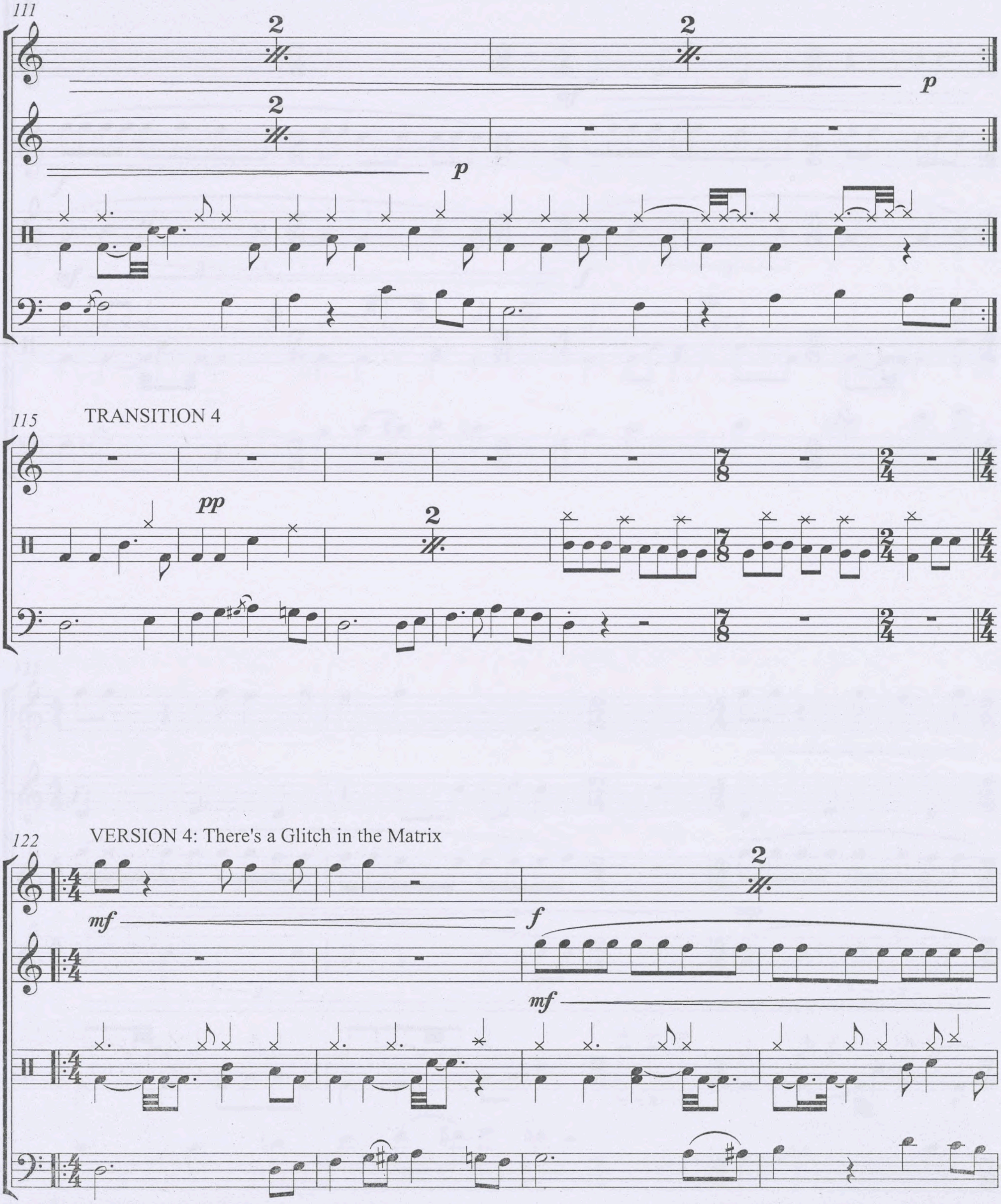
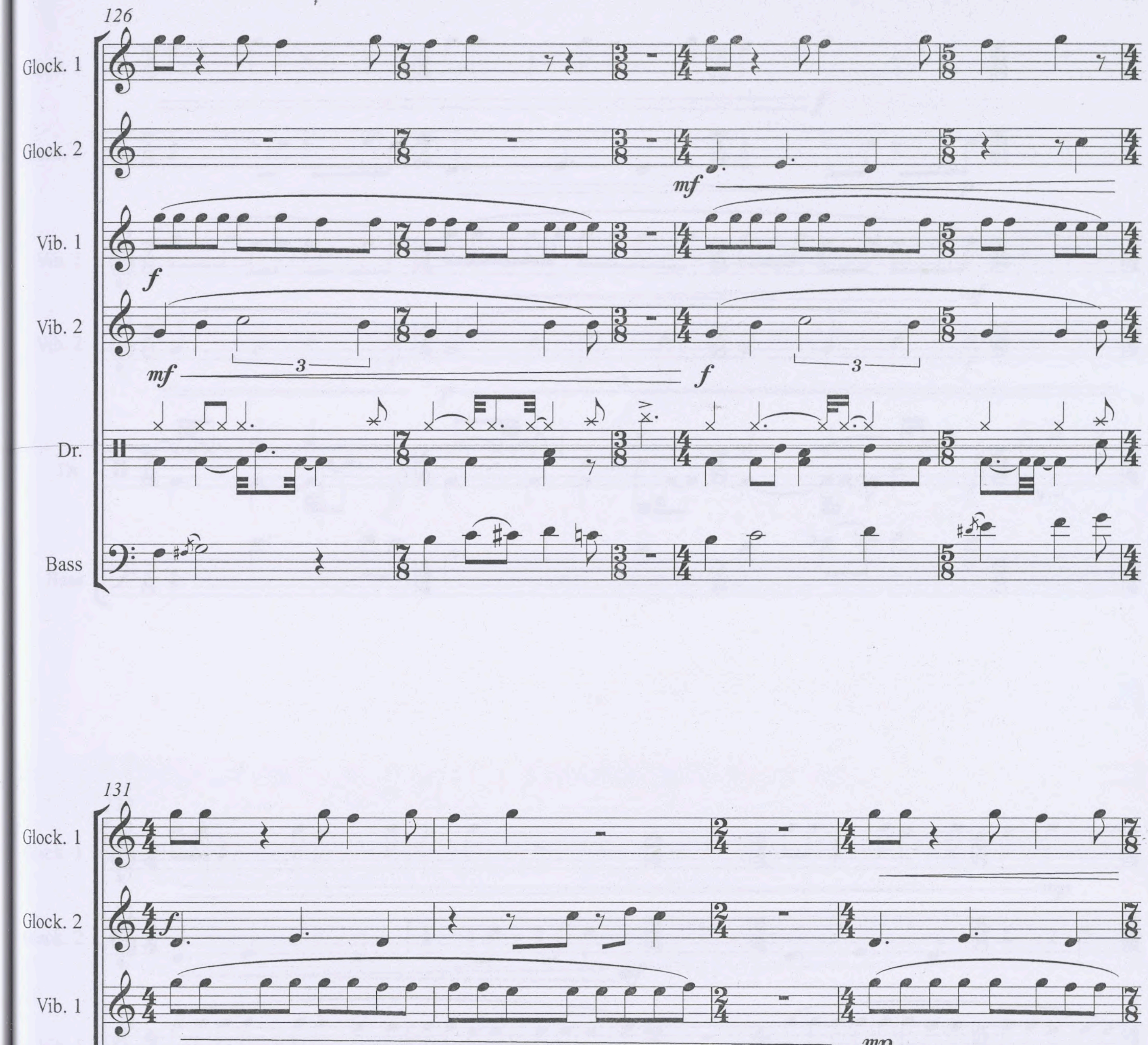
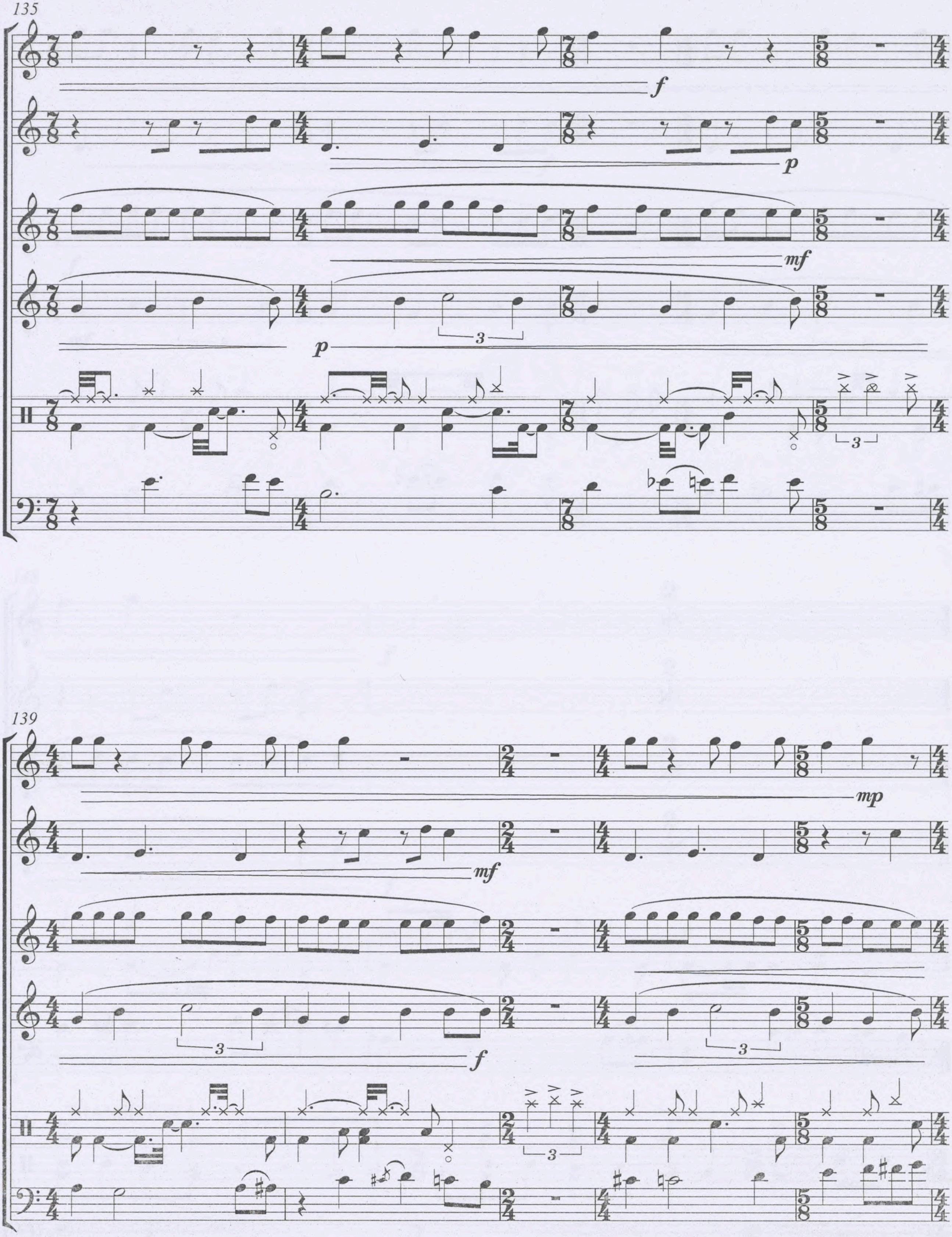
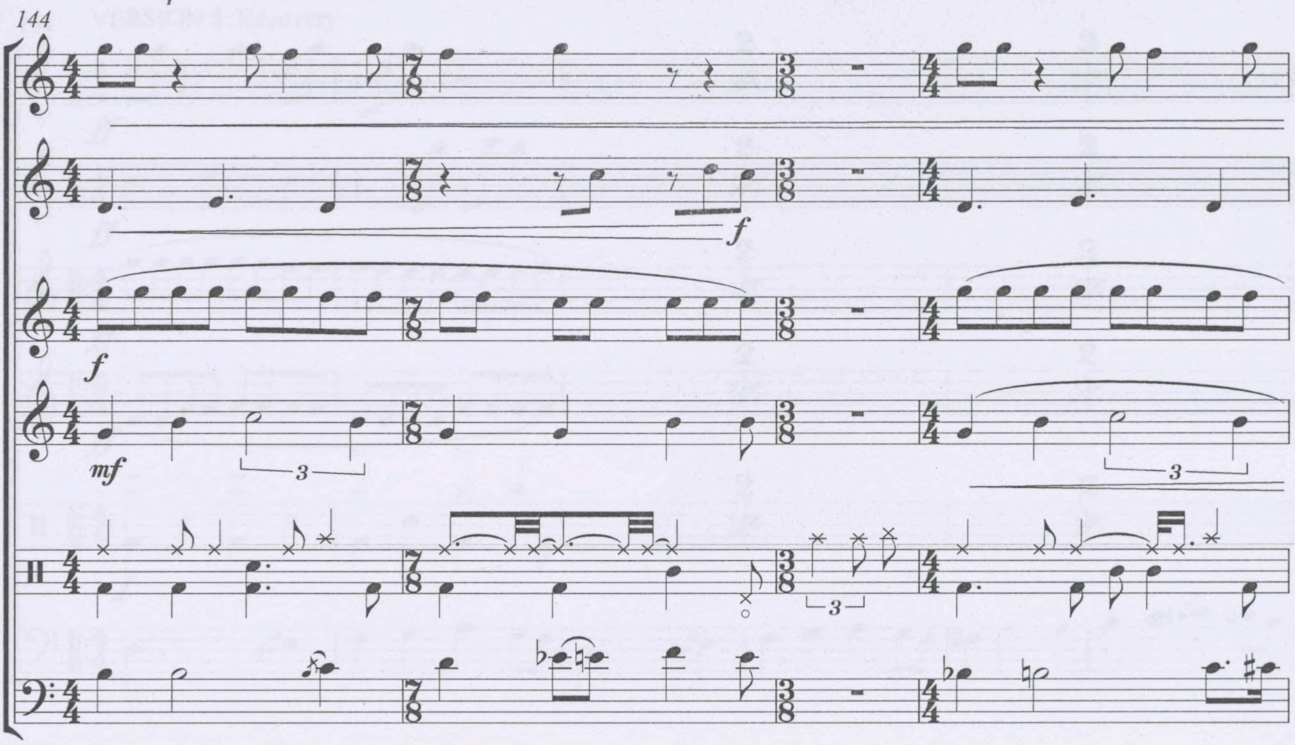
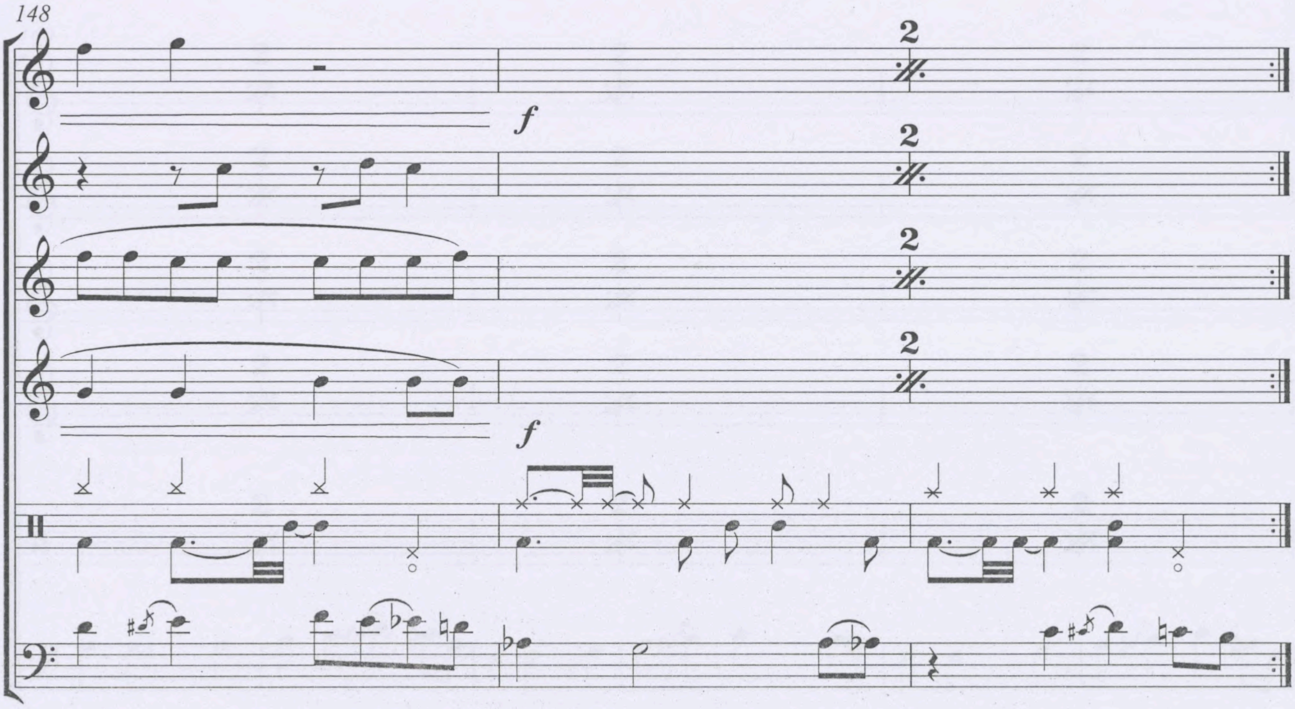
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
107
p
p

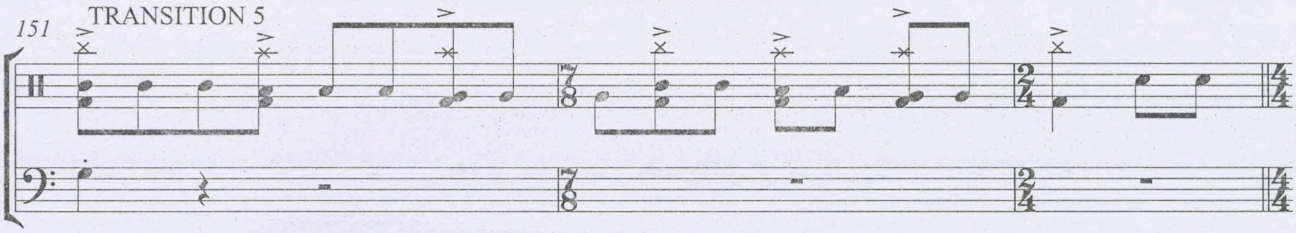

111
Glock. 1
2
2
p
Glock. 2
2
p
Dr.
Bass
115
TRANSITION 4
Vib. 2
7/8
2/4
4/4
Dr.
pp
2
Bass
122
VERSION 4: There's a Glitch in the Matrix
Glock. 1
2
mf
f
Vib. 1
mf
Dr.
Bass

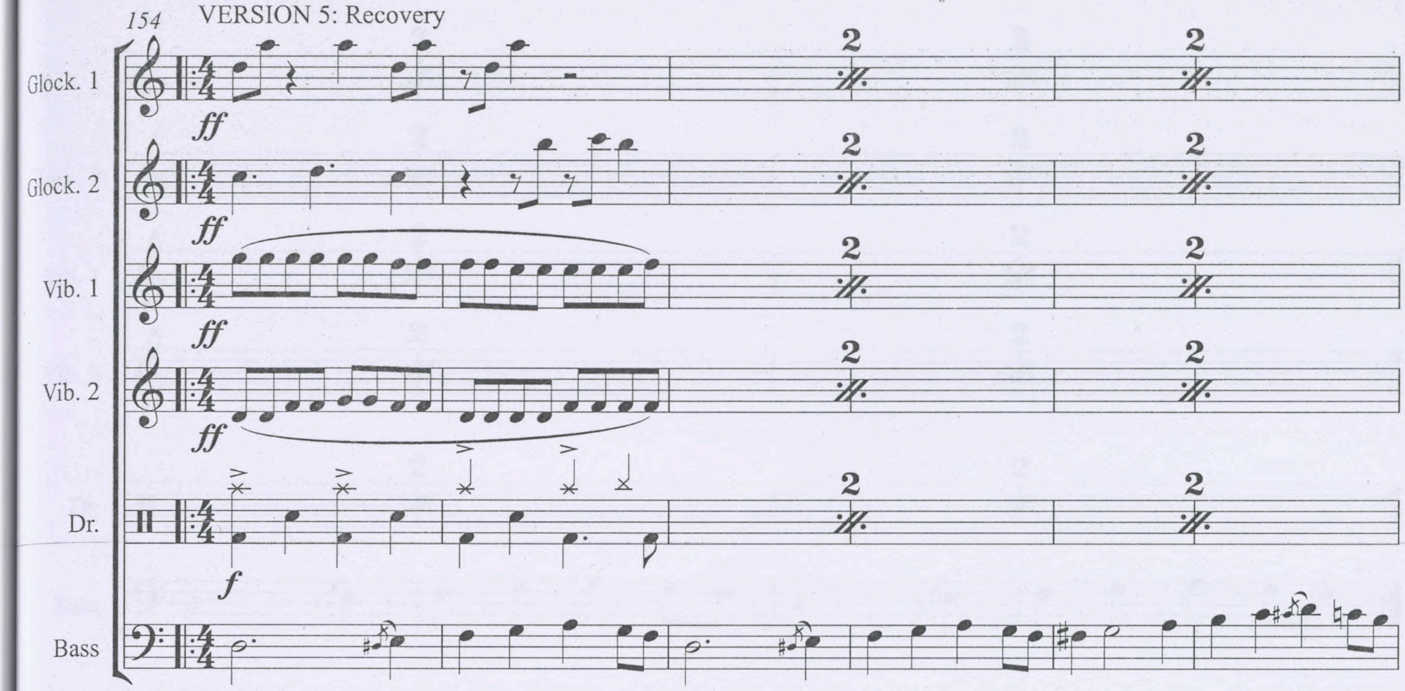

126
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
mf
f
mf
3
f
3
131
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
f
mp
3
3
3

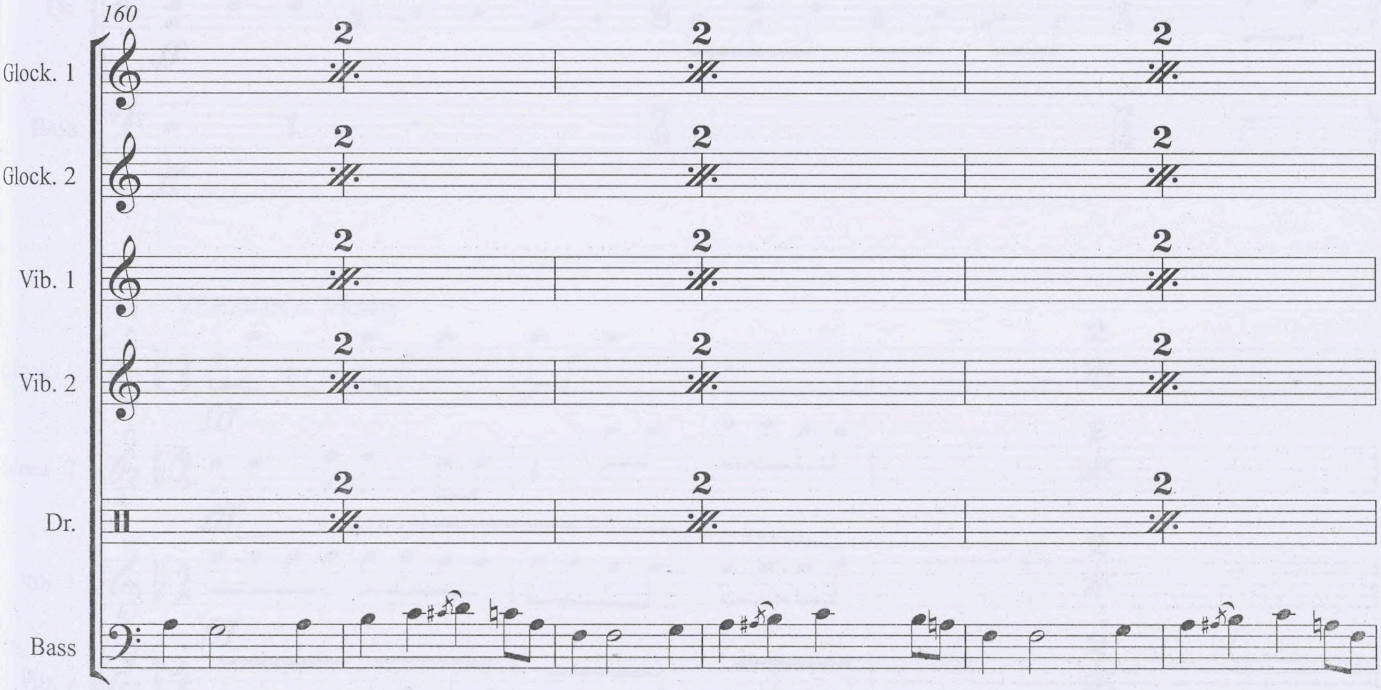

135
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
f
p
mf
p
3
3
139
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
mp
mf
f
3
3
3

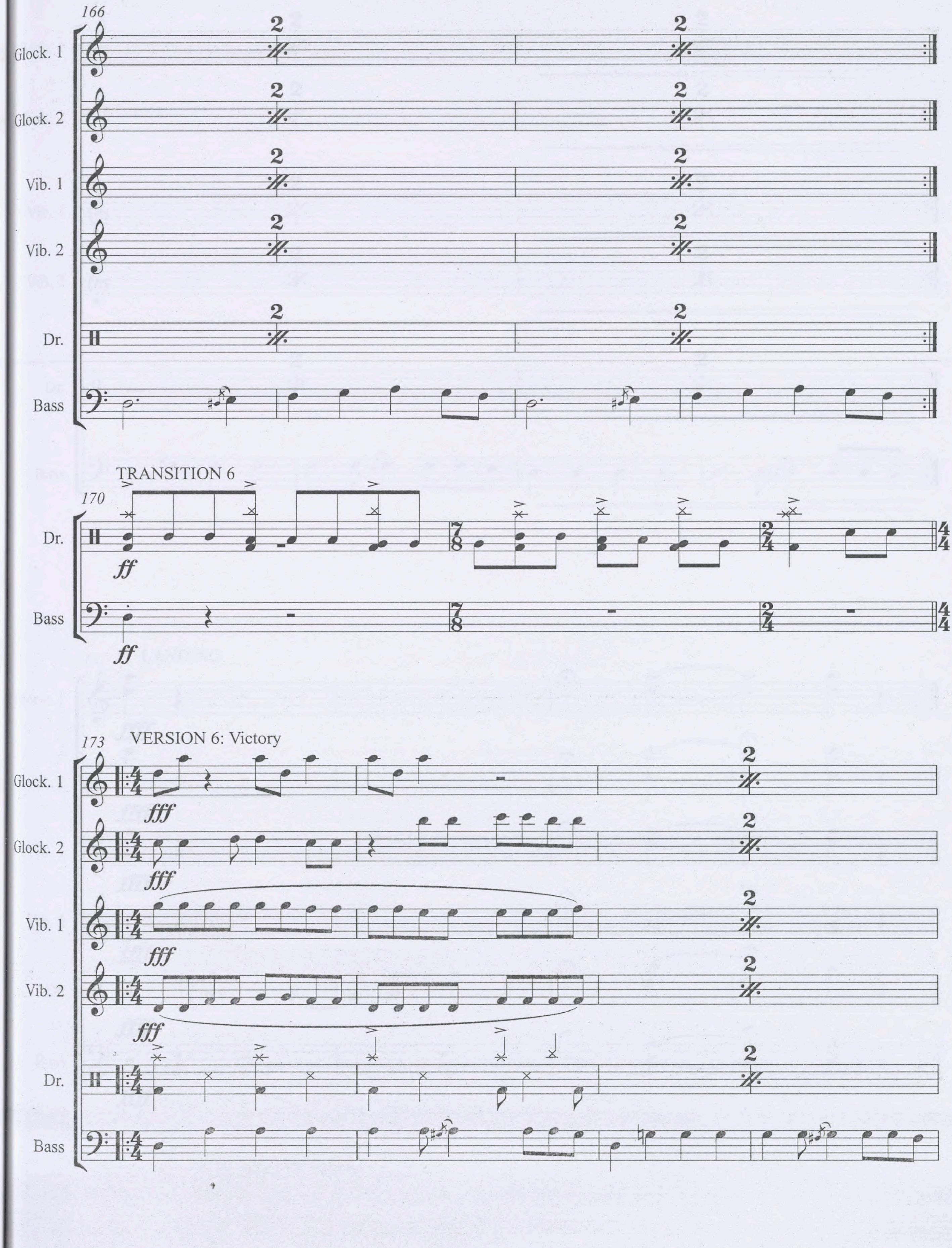

144
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
f
mf
3

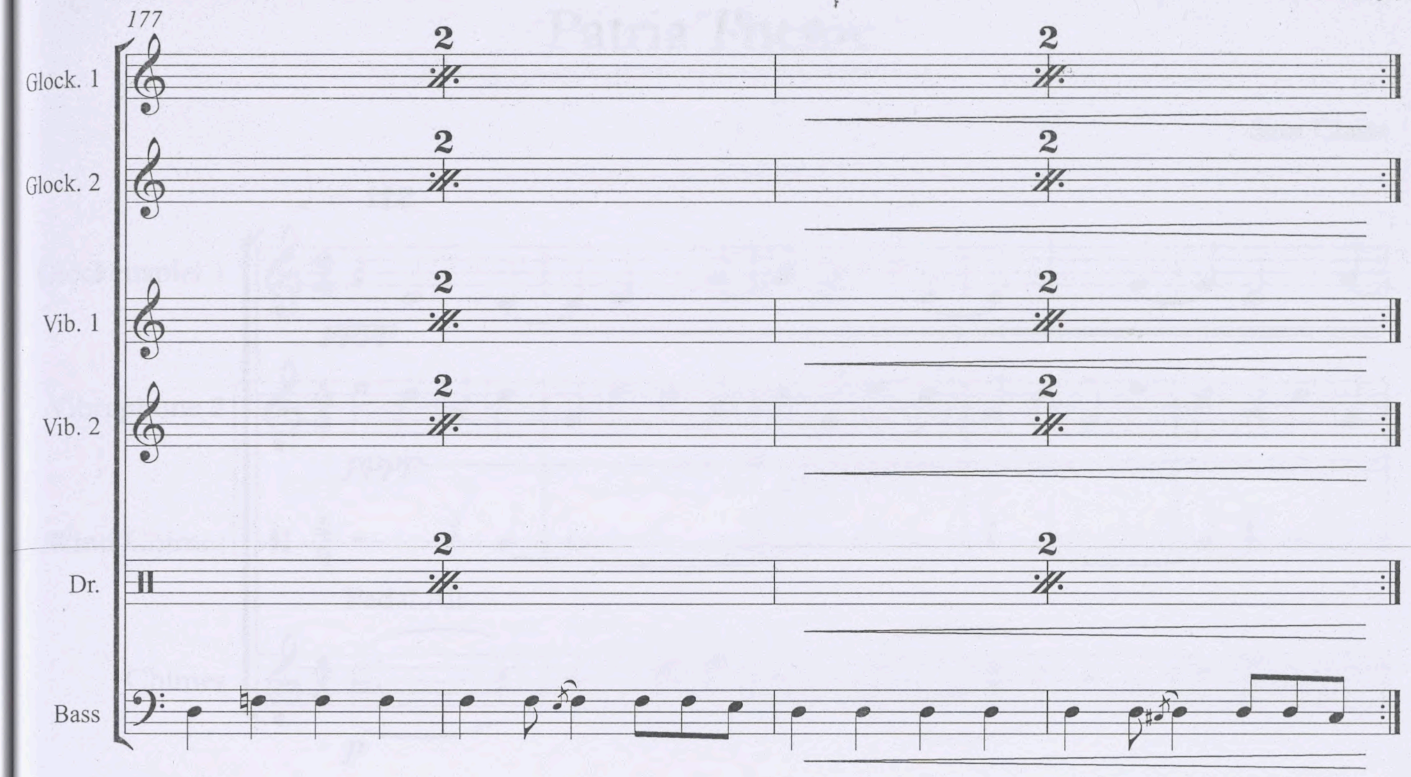

148
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
f
2

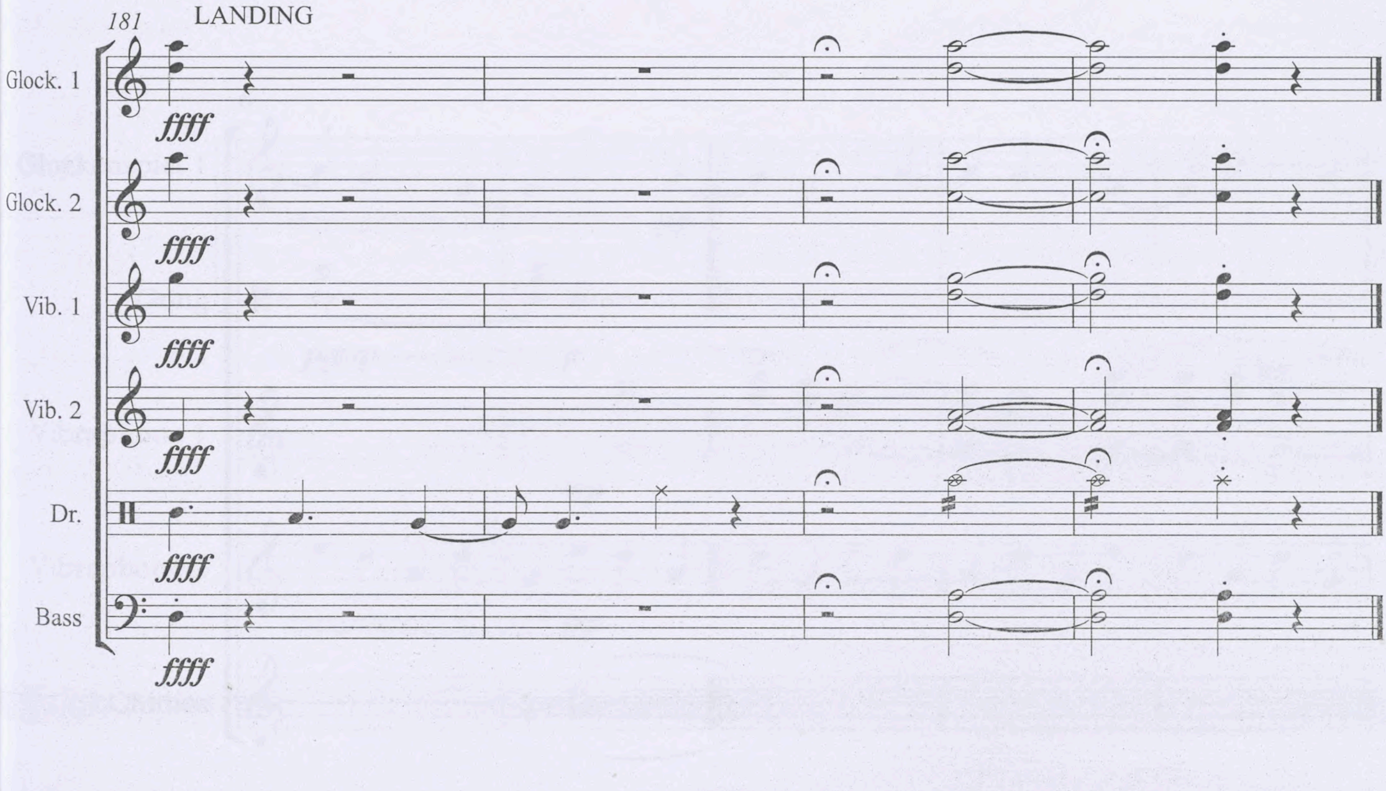

151
TRANSITION 5
Dr.
Bass


154
VERSION 5: Recovery
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
ff
ff
ff
ff
f
2
2


160
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
2
2

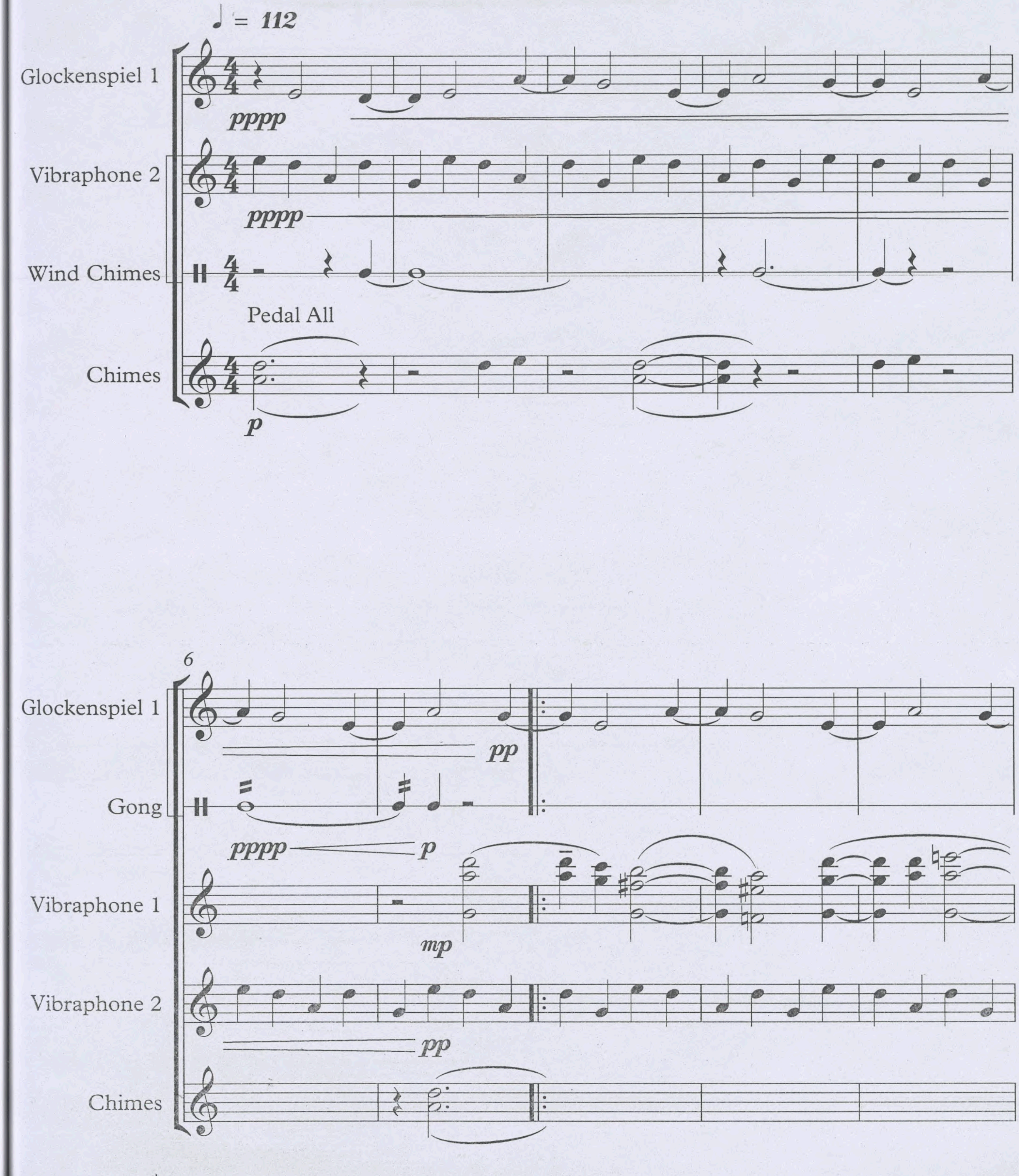

166
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
TRANSITION 6
170
ff
7
8
2
4
4
4
173
VERSION 6: Victory
fff

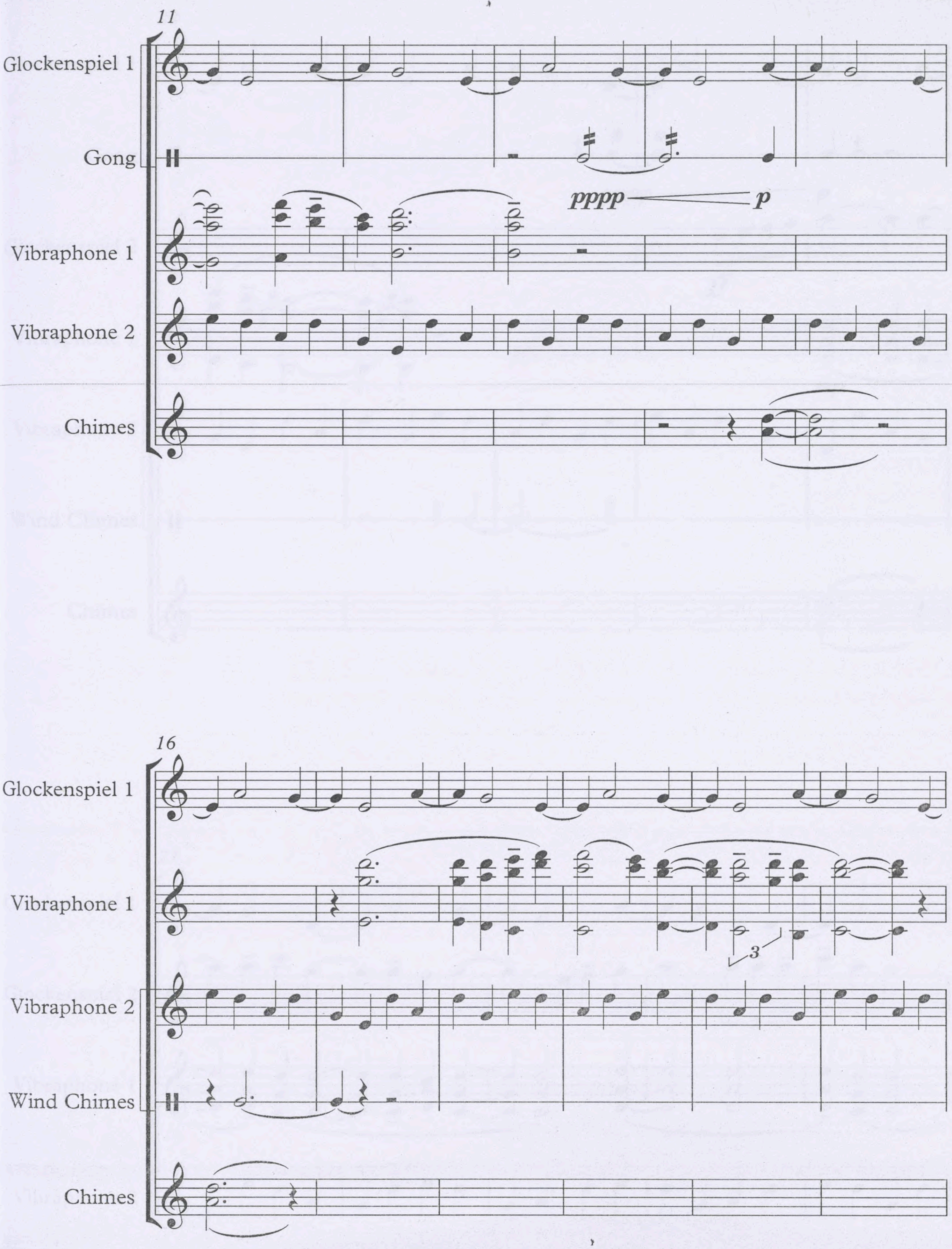

177
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
2
2

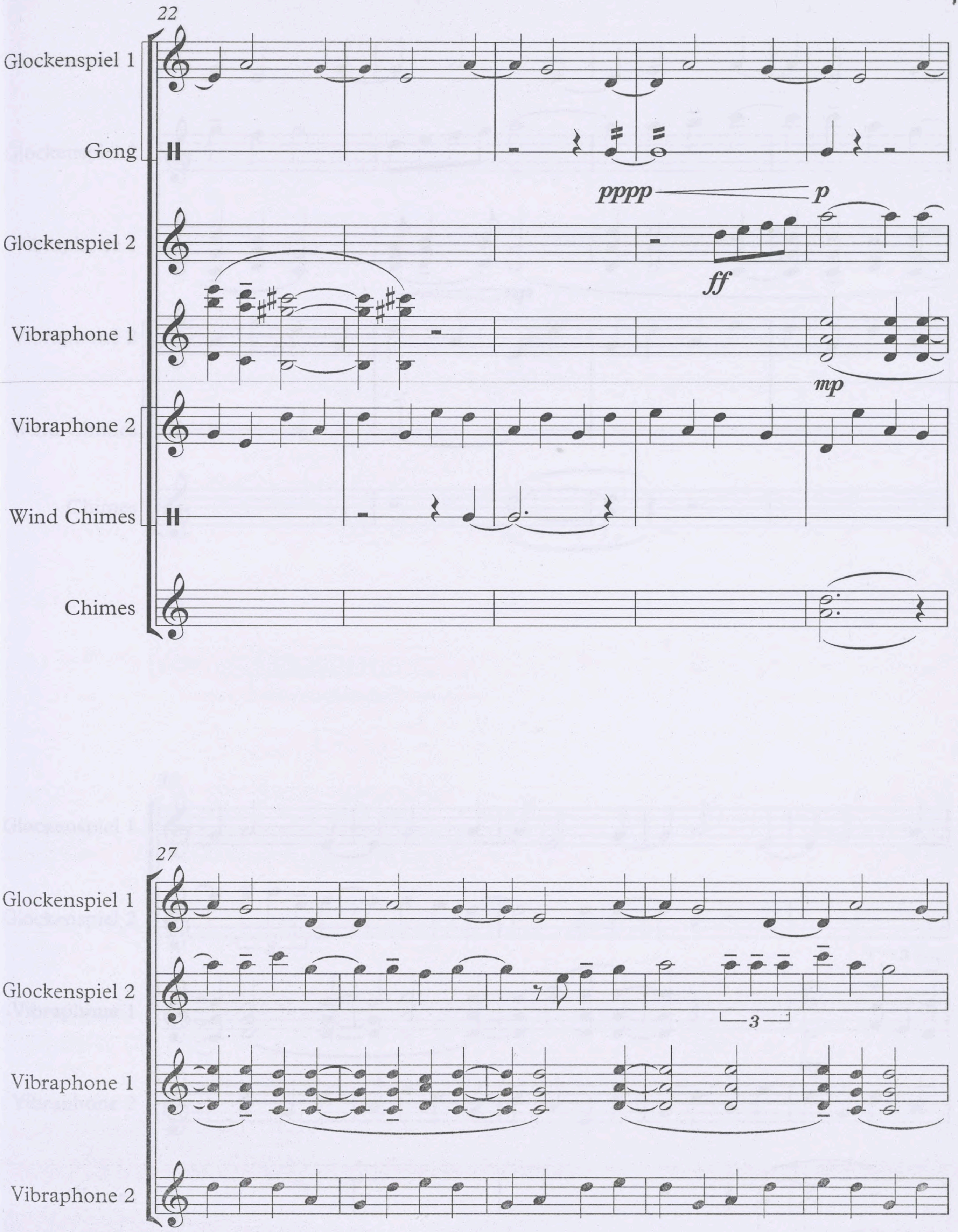

181
LANDING
Glock. 1
Glock. 2
Vib. 1
Vib. 2
Dr.
Bass
ffff

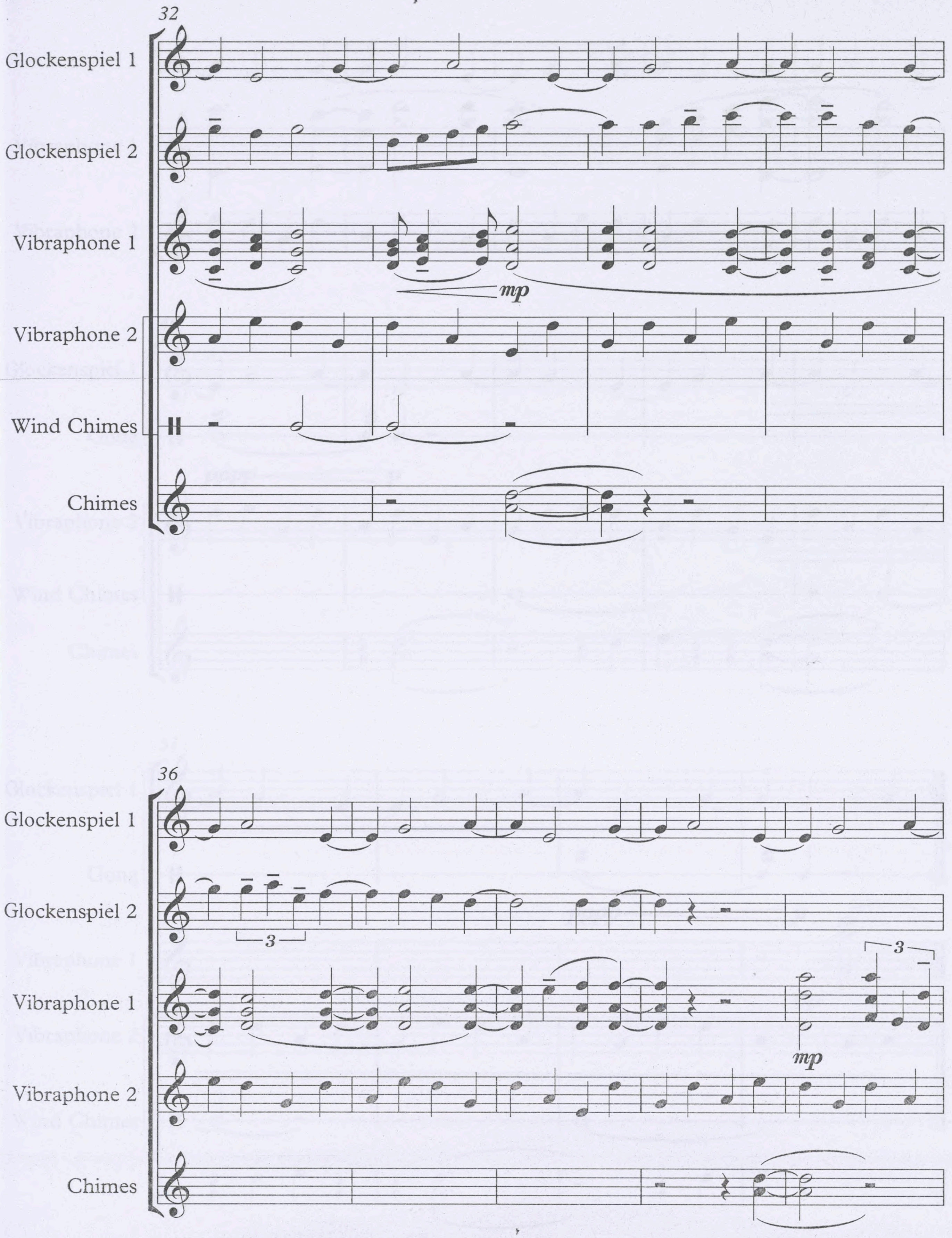
Patria Theme

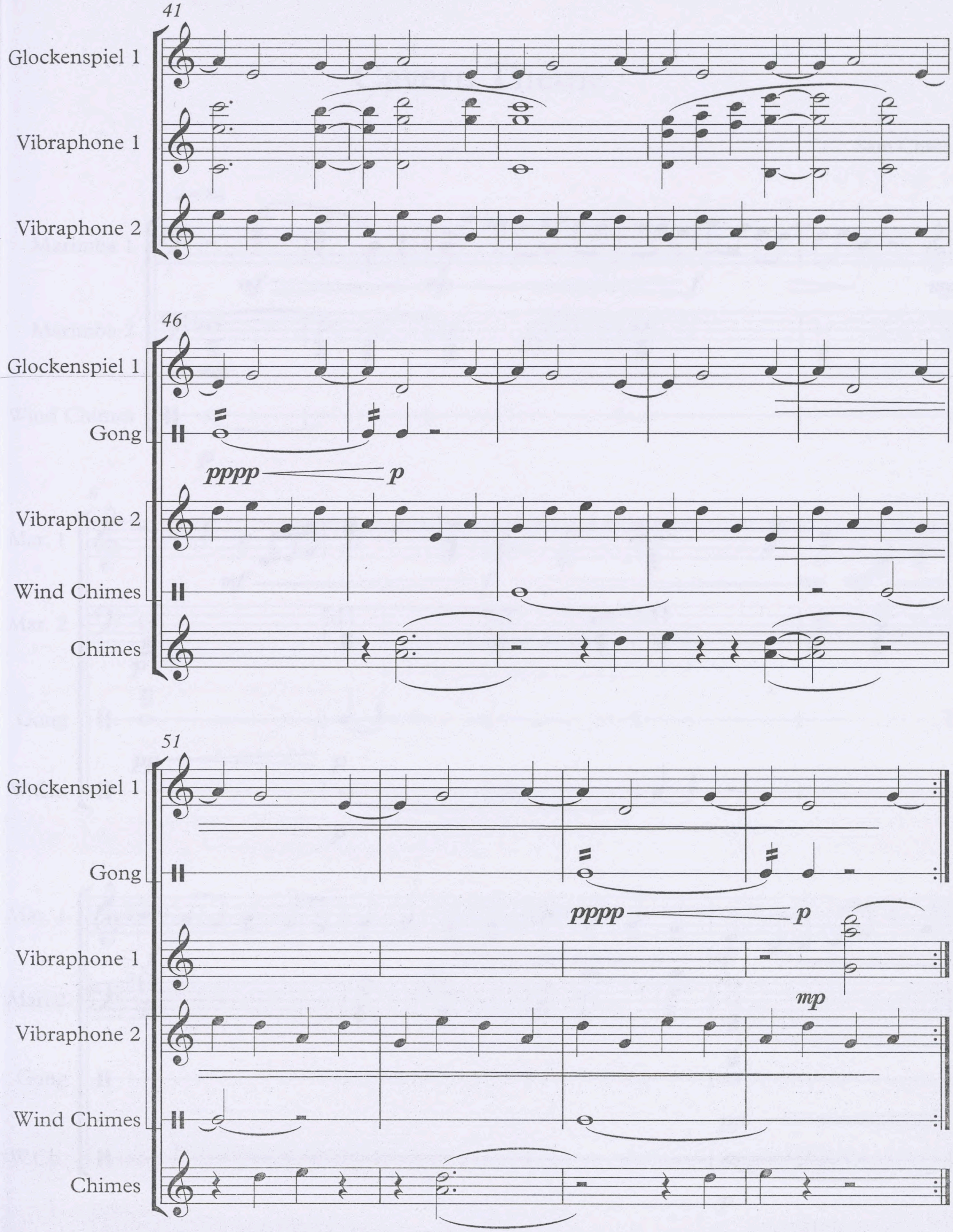
Sam Chase


♩ = 112
Glockenspiel 1
pppp
Vibraphone 2
pppp
Wind Chimes
Pedal All
Chimes
p
6
Glockenspiel 1
pp
Gong
pppp
p
Vibraphone 1
mp
Vibraphone 2
pp
Chimes


11
Glockenspiel 1
Gong
pppp
p
Vibraphone 1
Vibraphone 2
Chimes
16
Glockenspiel 1
Vibraphone 1
3
Vibraphone 2
Wind Chimes
Chimes

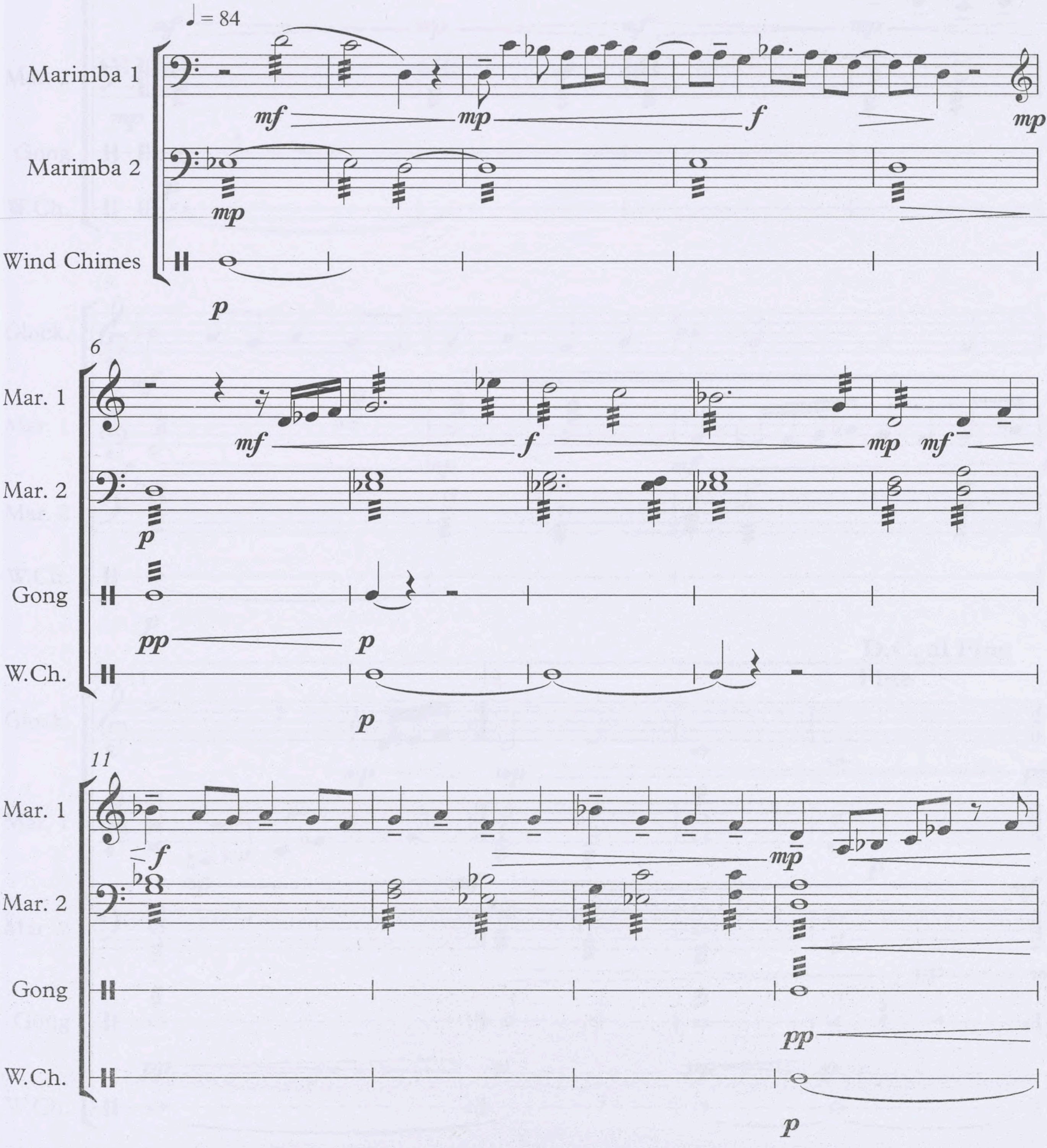

22
Glockenspiel 1
Gong
pppp
p
Glockenspiel 2
ff
Vibraphone 1
mp
Vibraphone 2
Wind Chimes
Chimes
27
Glockenspiel 1
Glockenspiel 2
3
Vibraphone 1
Vibraphone 2

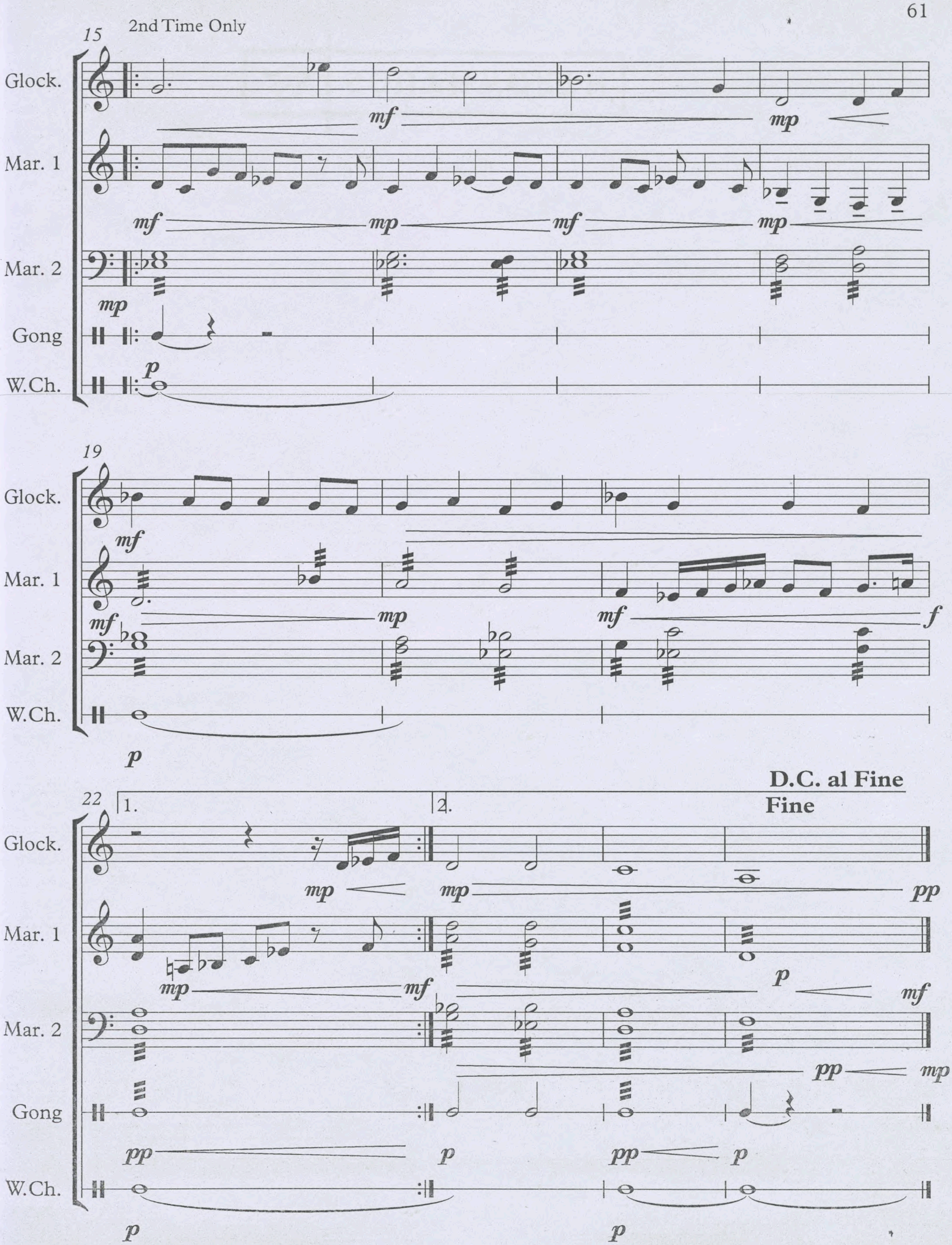

32
Glockenspiel 1
Glockenspiel 2
Vibraphone 1
mp
Vibraphone 2
Wind Chimes
Chimes
36
Glockenspiel 1
Glockenspiel 2
3
Vibraphone 1
3
mp
Vibraphone 2
Chimes


41
Glockenspiel 1
Vibraphone 1
Vibraphone 2
46
Glockenspiel 1
Gong
pppp
p
Vibraphone 2
Wind Chimes
Chimes
51
Glockenspiel 1
Gong
pppp
p
Vibraphone 1
mp
Vibraphone 2
Wind Chimes
Chimes

Cavern Theme

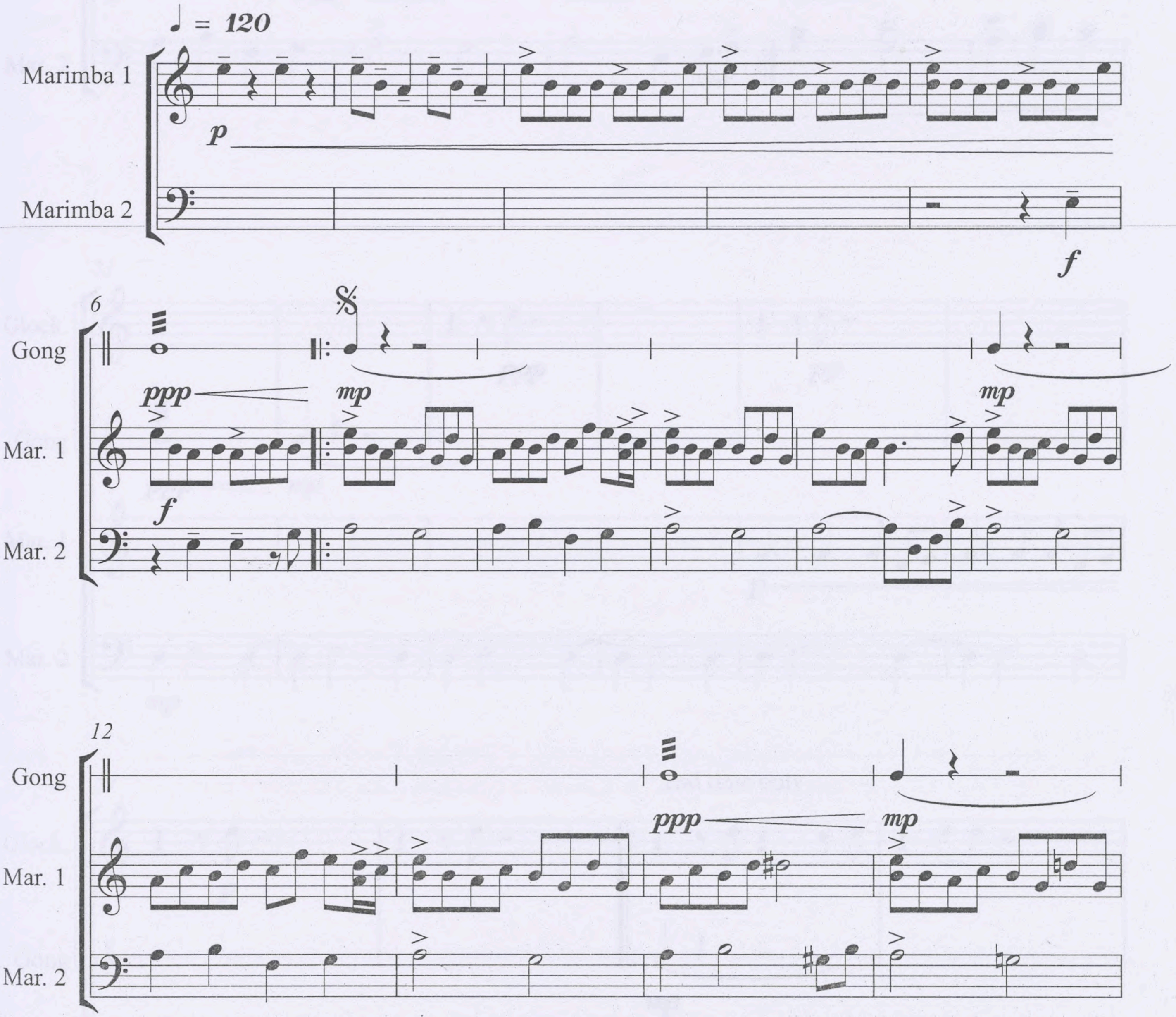
Sam Chase

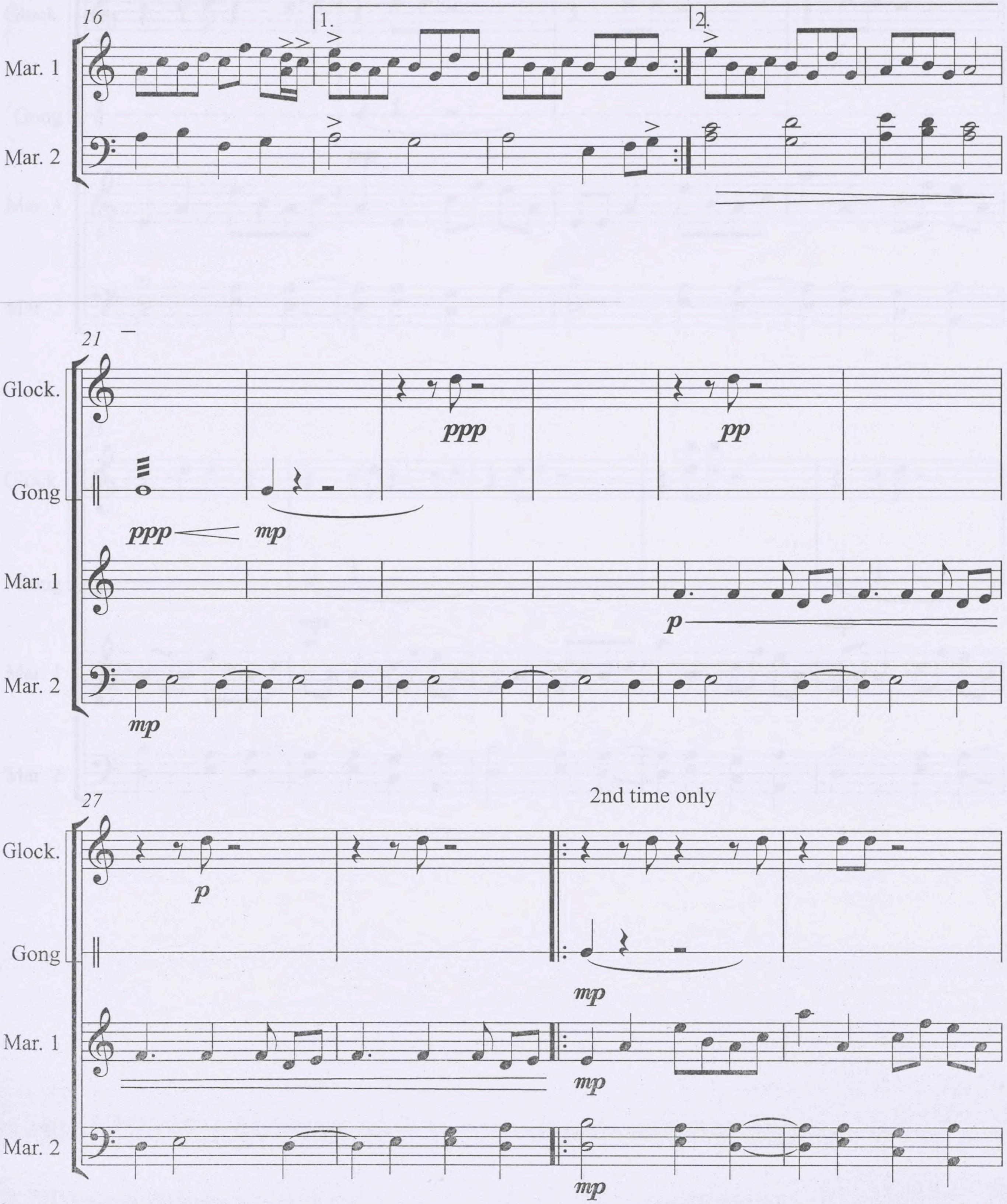

♩ = 84
Marimba 1
Marimba 2
Wind Chimes
mf
mp
f
mp
mp
p
6
Mar. 1
Mar. 2
Gong
W.Ch.
mf
f
mp
mf
p
pp
p
p
11
f
mp
pp
p

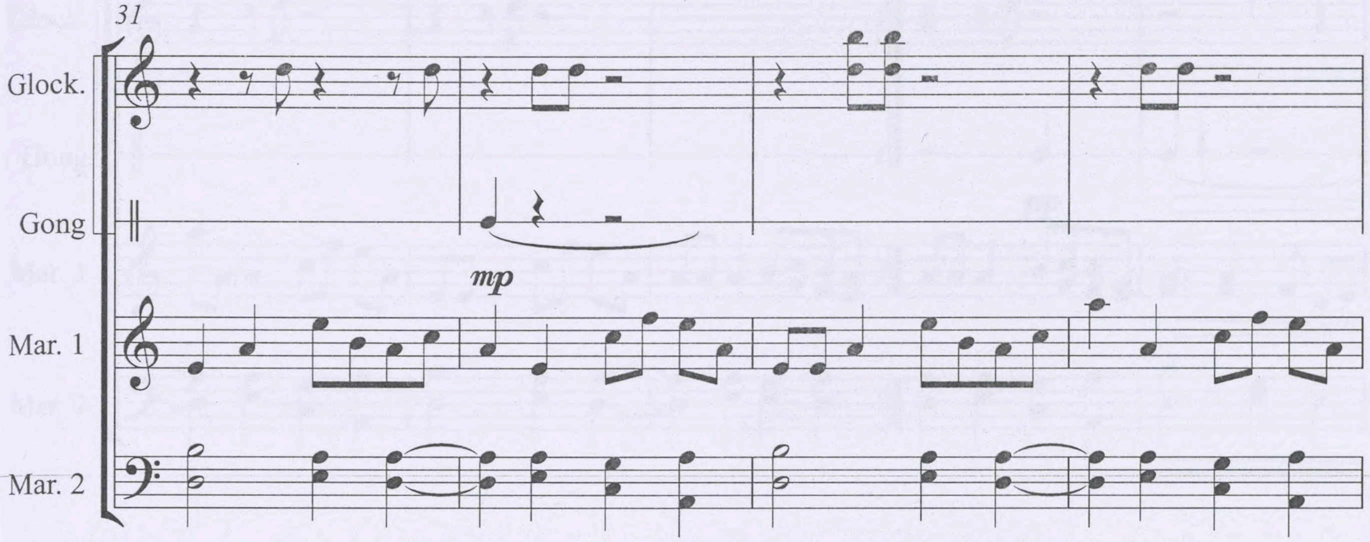

15
2nd Time Only
Glock.
Mar. 1
Mar. 2
Gong
W.Ch.
mf
mp
mf
mp
mf
mp
mp
p
19
Glock.
Mar. 1
Mar. 2
W.Ch.
mf
mf
mp
mf
f
p
22
1.
2.
D.C. al Fine
Fine
Glock.
Mar. 1
Mar. 2
Gong
W.Ch.
mp
mp
pp
mp
mf
p
mf
pp
mp
pp
p
pp
p
p
p

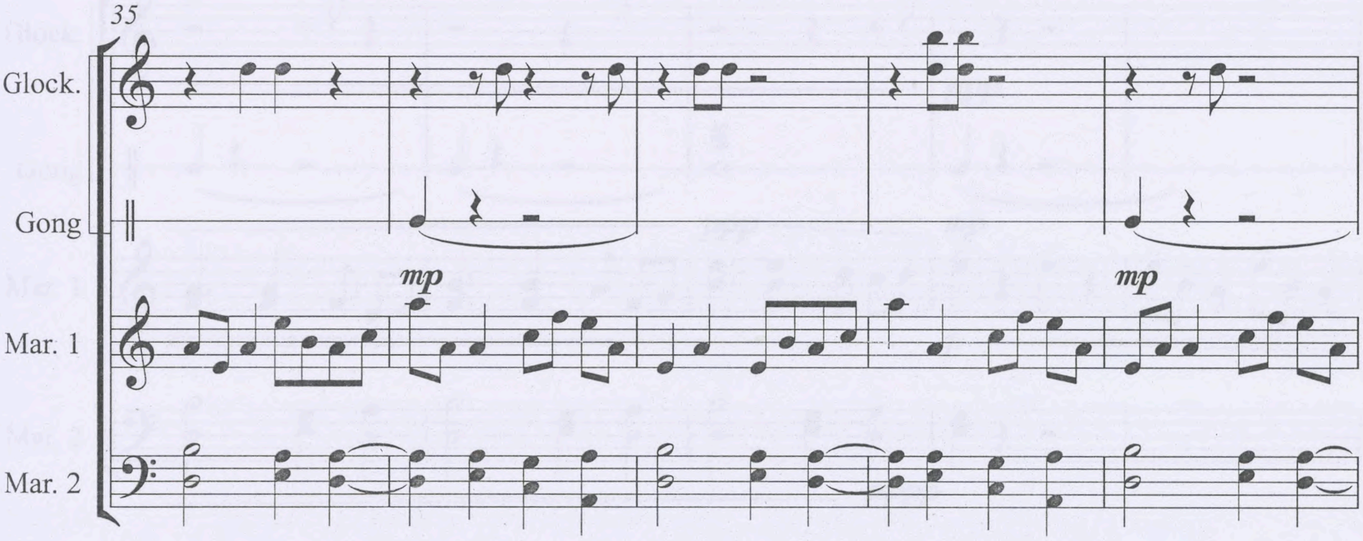
Orias Theme

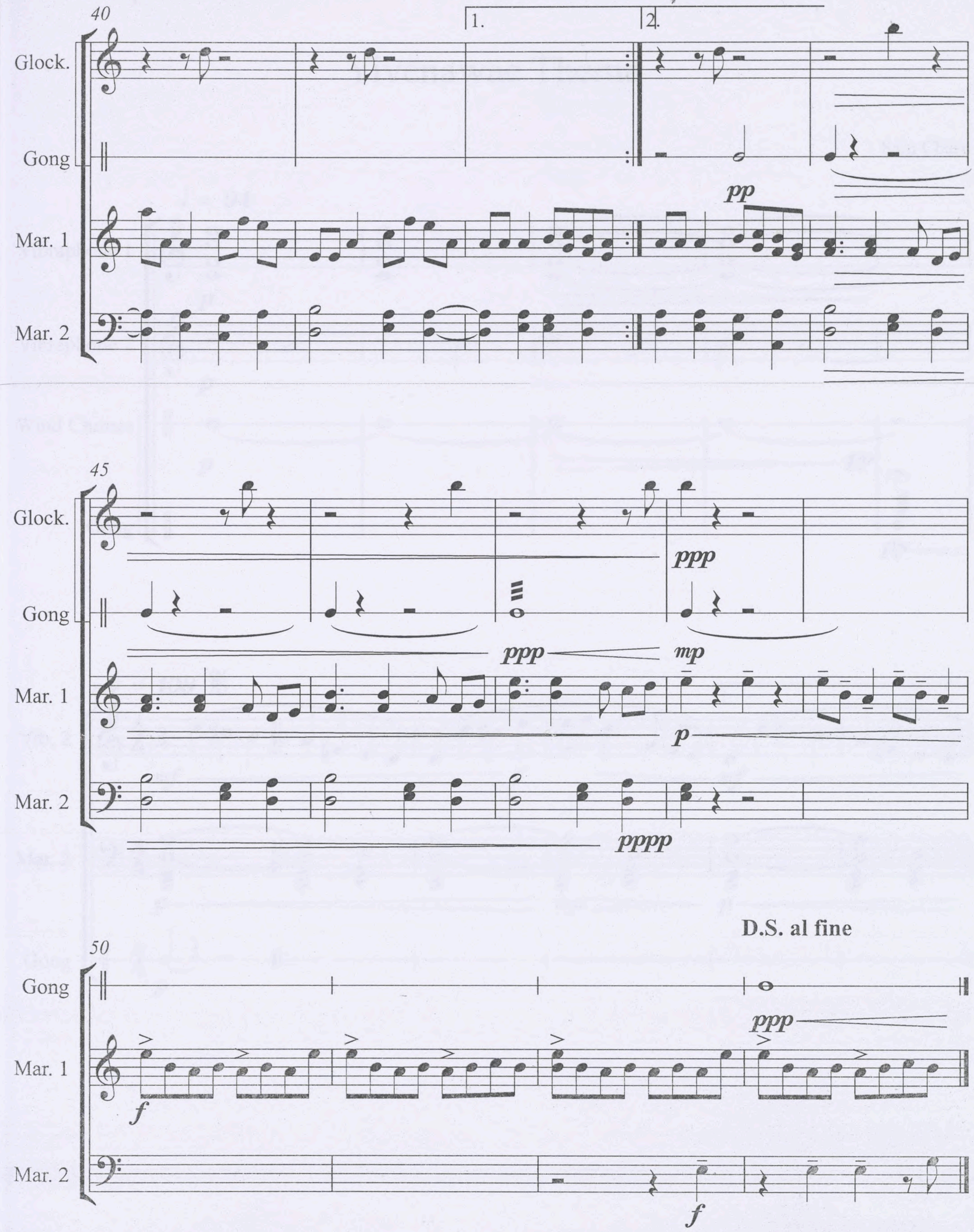
Sam Chase


♩ = 120
Marimba 1
Marimba 2
p
f
6
Gong
Mar. 1
Mar. 2
ppp
mp
f
12
Gong
Mar. 1
Mar. 2
ppp
mp


16
1.
2.
Mar. 1
Mar. 2
21
Glock.
Gong
Mar. 1
Mar. 2
ppp
mp
ppp
pp
p
mp
27
2nd time only
Glock.
Gong
Mar. 1
Mar. 2
p
mp
mp
mp

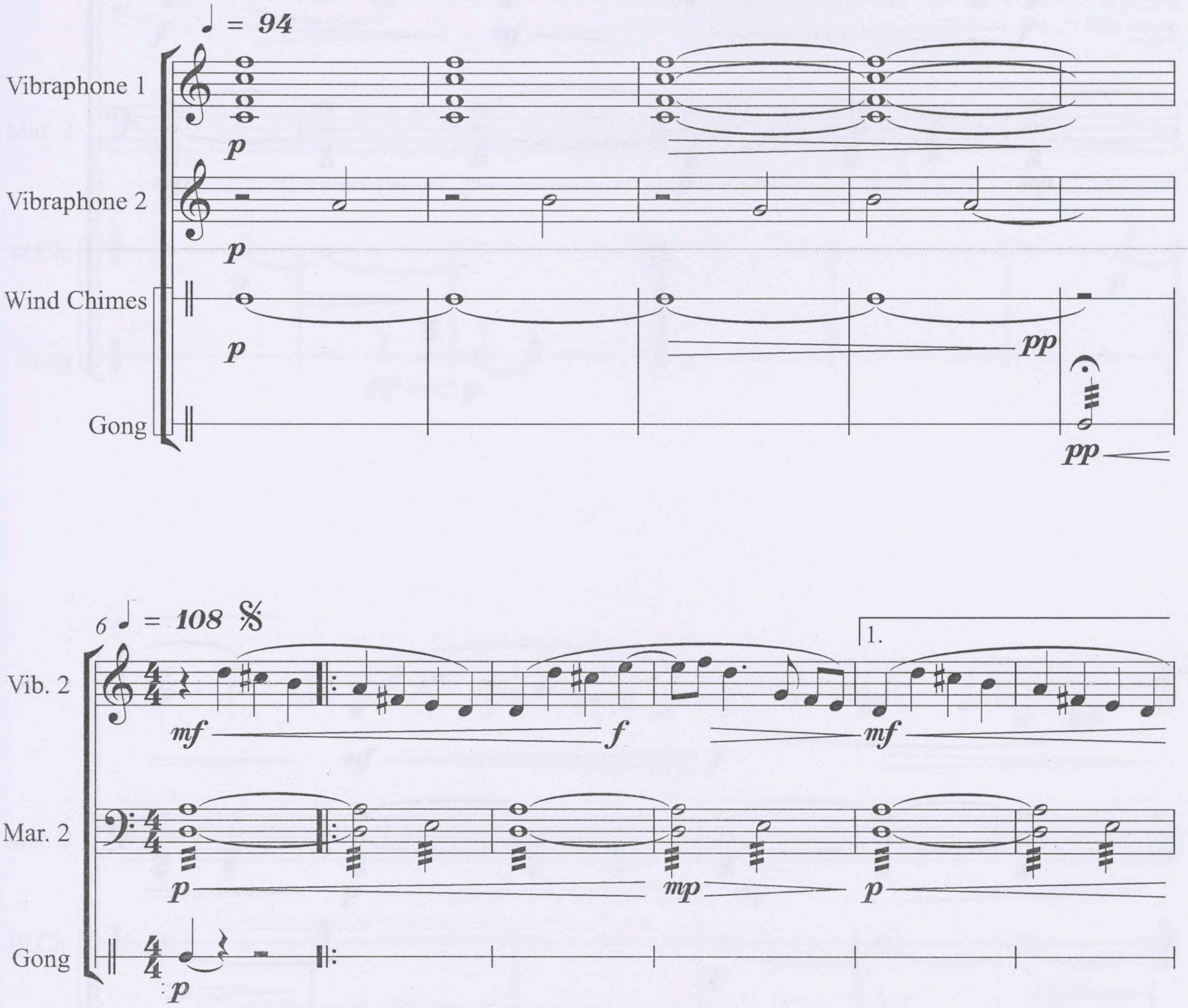

31
Glock.
Gong
mp
Mar. 1
Mar. 2

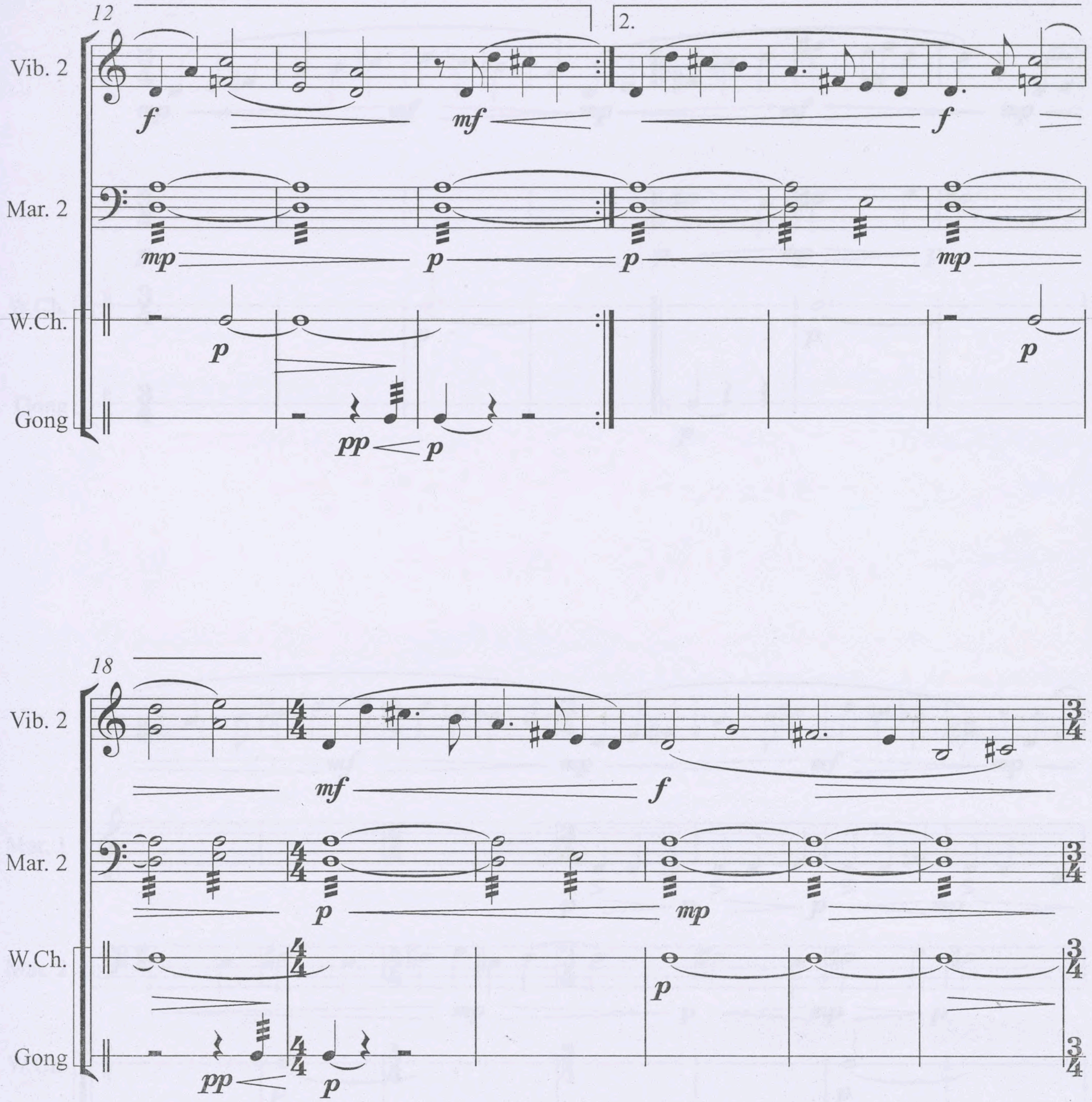

35
Glock.
Gong
mp
mp
Mar. 1
Mar. 2

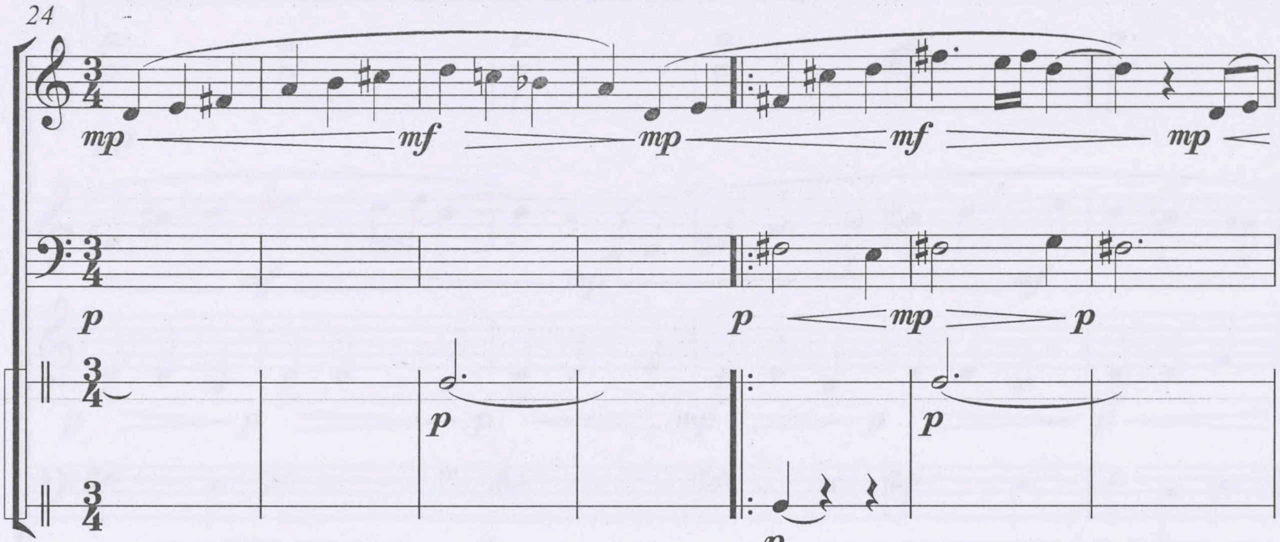

40
1.
2.
Glock.
Gong
Mar. 1
Mar. 2
pp
45
Glock.
Gong
Mar. 1
Mar. 2
ppp
ppp
mp
p
pppp
50
D.S. al fine
Gong
Mar. 1
Mar. 2
f
ppp
f

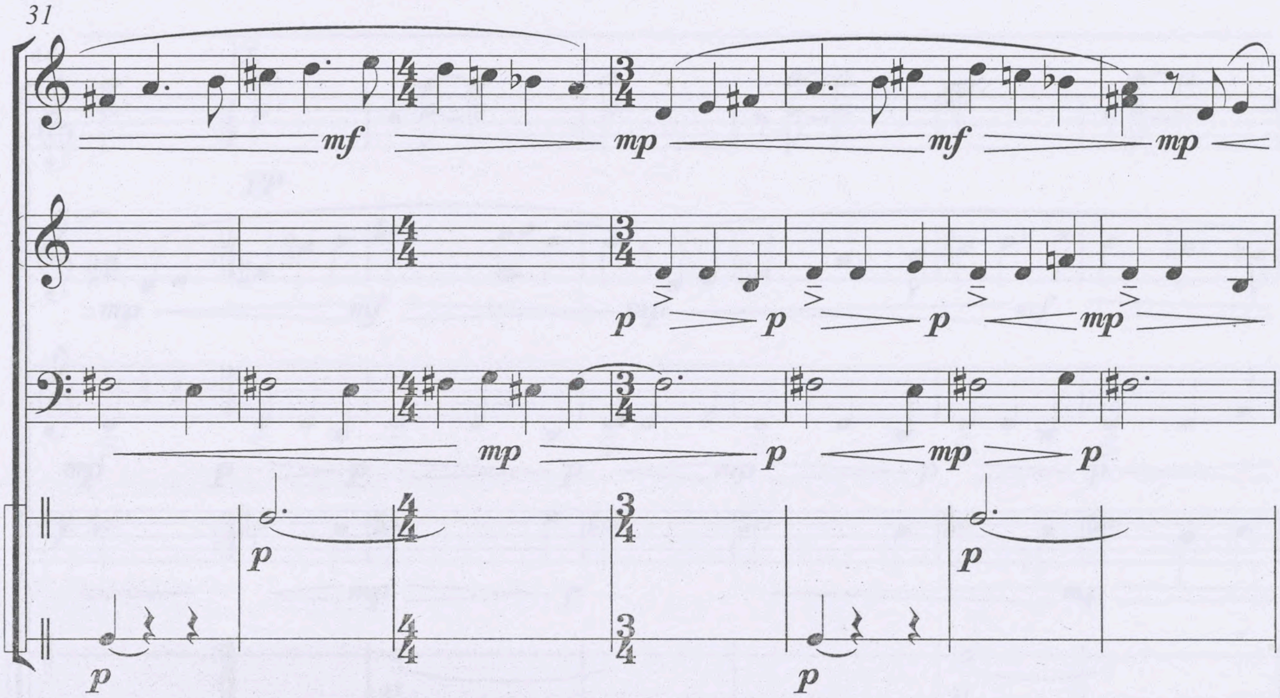
Yivenawae Theme

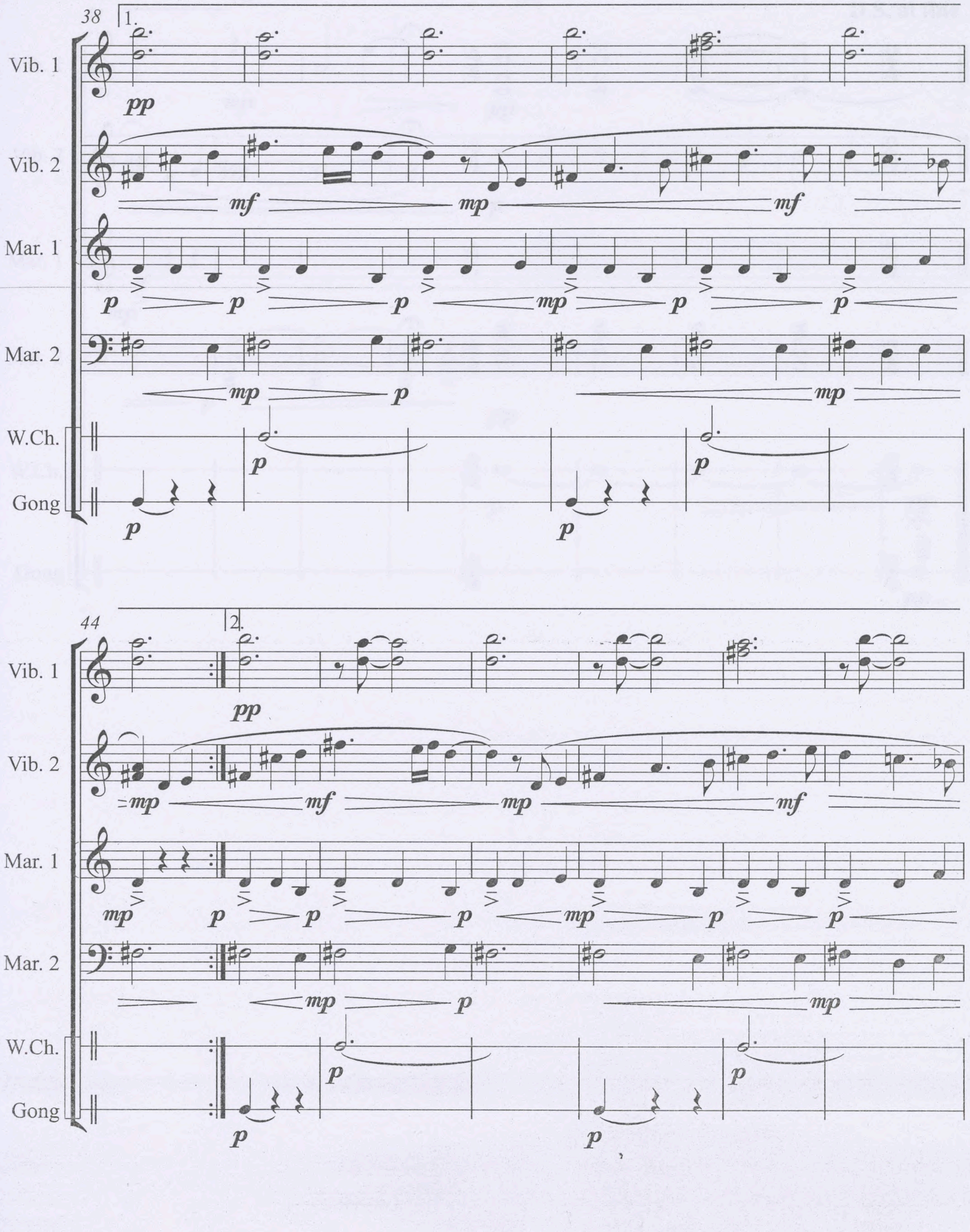
Sam Chase

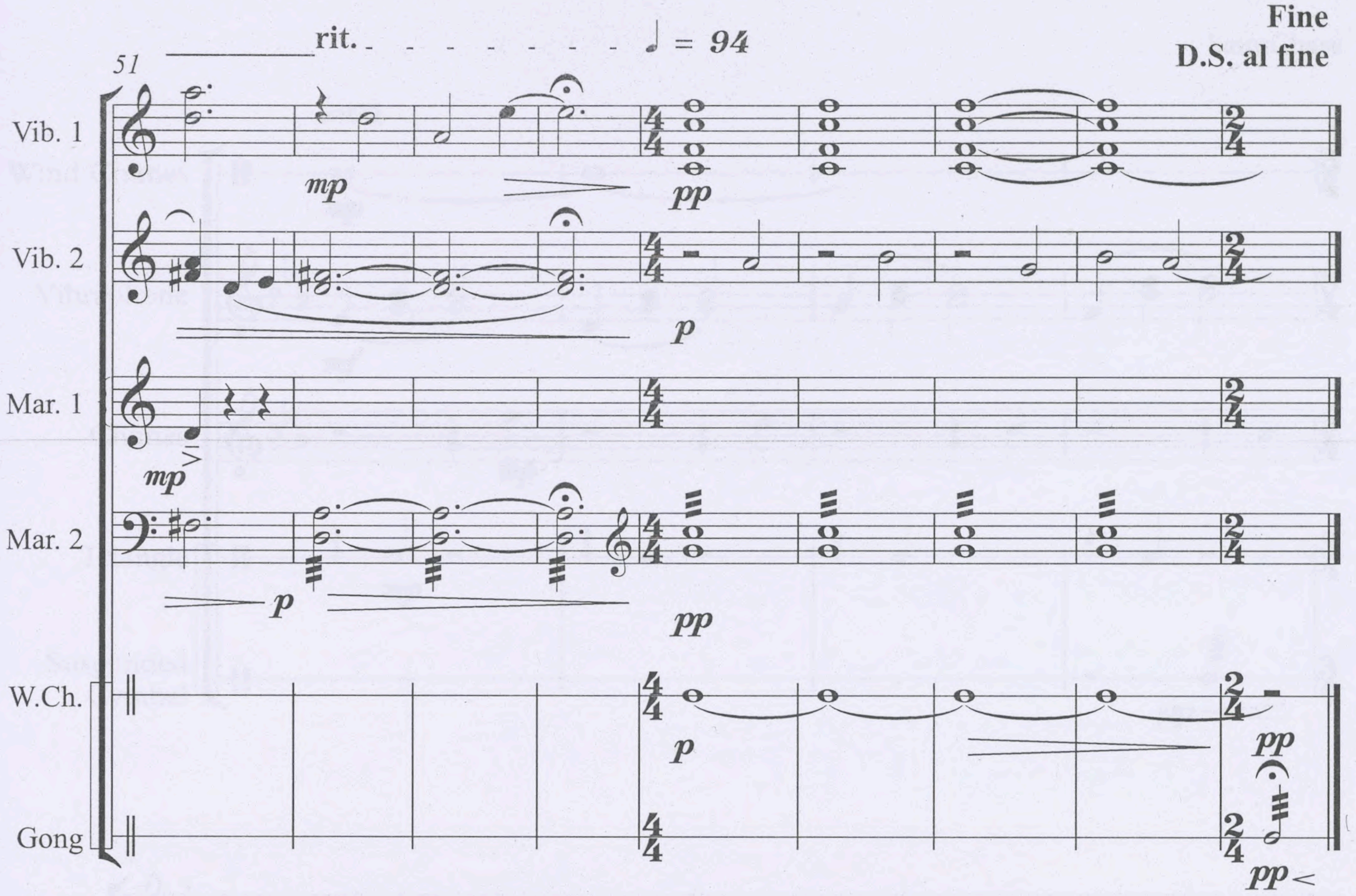

♩ = 94
Vibraphone 1
Vibraphone 2
Wind Chimes
Gong
p
p
p
pp
pp
6
♩ = 108
𝄋
1.
Vib. 2
Mar. 2
Gong
mf
f
mf
p
mp
p
p


12
2.
Vib. 2
Mar. 2
W.Ch.
Gong
f
mf
f
mp
p
p
mp
p
p
pp
p
18
Vib. 2
Mar. 2
W.Ch.
Gong
4/4
3/4
mf
f
p
mp
p
pp
p


24
Vib. 2
mp
mf
mp
mf
mp
Mar. 2
p
p
mp
p
W.Ch.
p
p
Gong
p

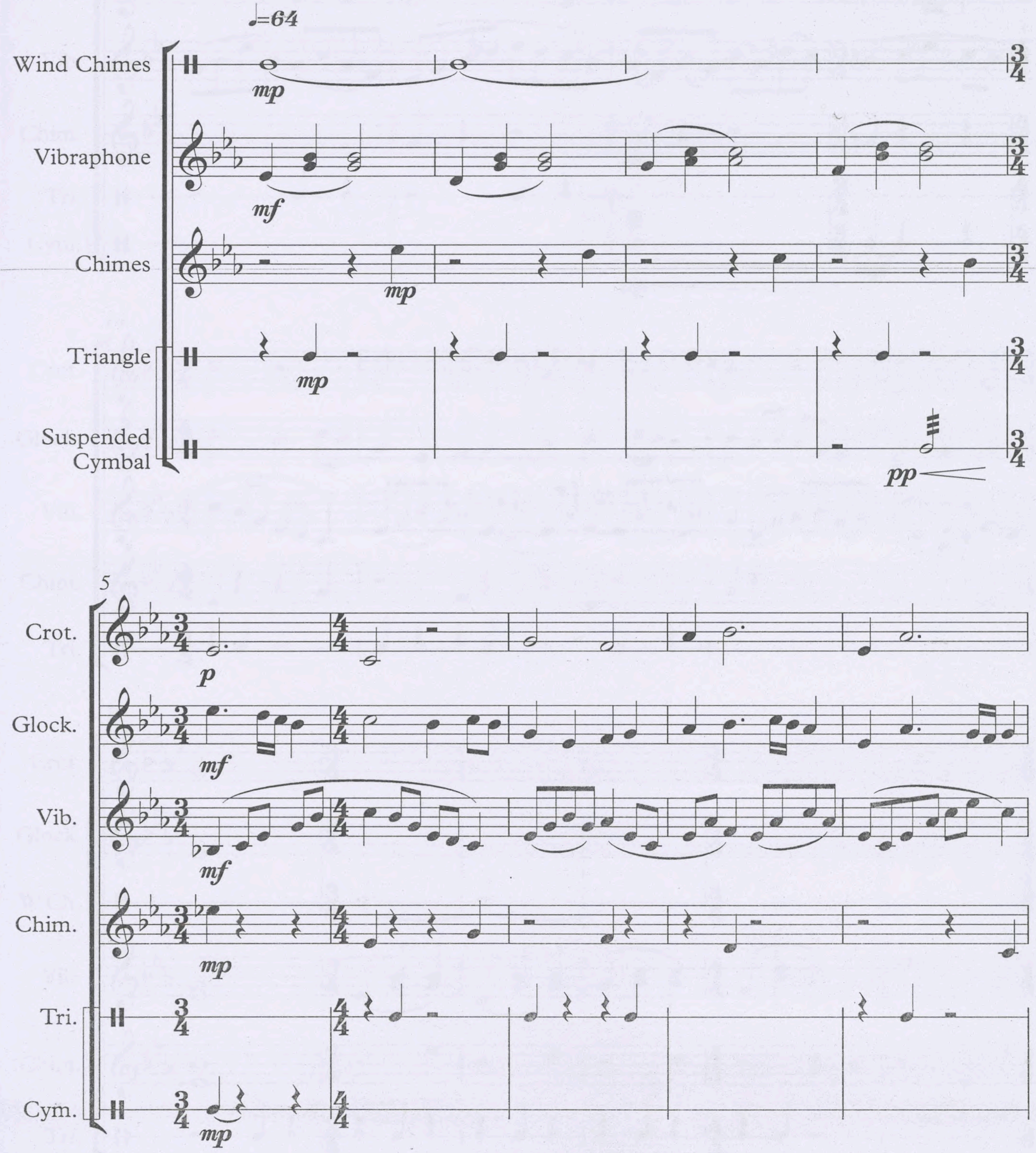

31
Vib. 2
mf
mp
mf
mp
Mar. 1
p
p
p
mp
Mar. 2
mp
p
mp
p
W.Ch.
p
p
Gong
p
p

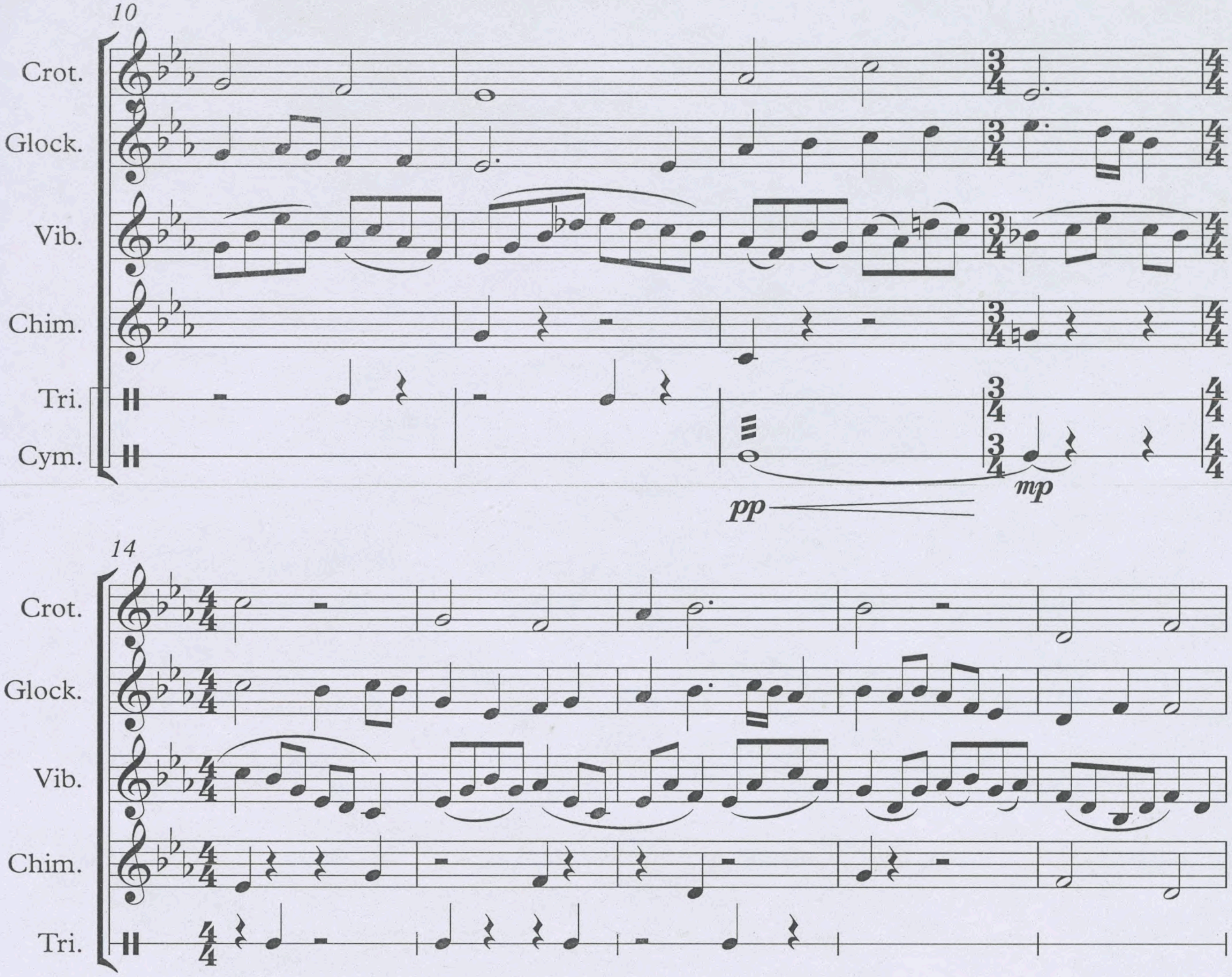

38
1.
Vib. 1
Vib. 2
Mar. 1
Mar. 2
W.Ch.
Gong
pp
mf
mp
p
44
2.

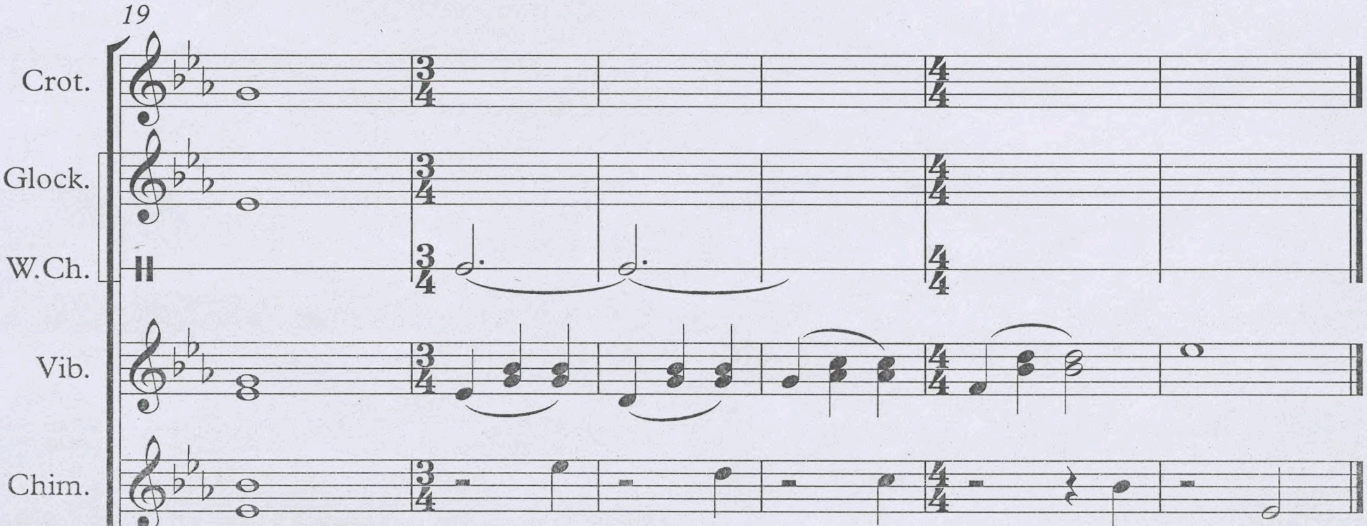

51
rit.
♩ = 94
Fine
D.S. al fine
Vib. 1
Vib. 2
Mar. 1
Mar. 2
W.Ch.
Gong
mp
pp
p
mp
p
pp
p
pp
pp

Reunion Theme

Sam Chase


♩=64
Wind Chimes
mp
Vibraphone
mf
Chimes
mp
Triangle
mp
Suspended Cymbal
pp
5
Crot.
p
Glock.
mf
Vib.
mf
Chim.
mp
Tri.
Cym.
mp


10
Crot.
Glock.
Vib.
Chim.
Tri.
Cym.
pp
mp
14


19
Crot.
Glock.
W.Ch.
Vib.
Chim.
Tri.